Heathrow H8 CAA Round 4 Initial Proposals

Passenger Forecast Review for LACC (Final)

May 2026

SKYLARK consulting group

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Heathrow H8 CAA Initial Proposal – Traffic Forecast Review

Background

Overview

- Skylark Consulting Group (“Skylark”) has been engaged by London Airline Consultative Committee (“LACC”, “the Client”), on behalf of the International Air Transport Association (“IATA”), to provide traffic forecasting review advisory services (“the Works”) related to the H8 Round 4 – CAA Initial Proposal (IP) for Heathrow Airport Price Control (2027-2031)
- This report forms the outputs of our review of the traffic forecast produced by Steer, acting as the independent consultant on behalf of the CAA

Key Documents Reviewed

- CAA’s H8 Initial Proposals, March 2026 (CAP3232)
- Steer H8 Traffic Reviews for IPs and the supporting documents
- Other documents and appendices provided by the Client for the purposes of the project

Sources of Information

- Our analysis has been based on:
  - The H8 Initial Proposals and associated appendices and other relevant data provided by the CAA/HAL/LACC
  - Primary and secondary traffic projections
  - CAA H8 consultation and guidance documents
  - Interaction, both physical and virtual, with the Client and Steer/CAA
  - Previous LACC/IATA Correspondences
  - Previous Price Control decisions and documentations
  - UK CAA statistics
  - OAG Schedule Seat Capacity and ATM data
  - Publicly available information

Executive Summary

Steer should consider the potential for additional growth in passenger ATMs and seat factor during the H8 period

Executive Summary | Traffic Forecast

Passenger ATMs	▪ LHR has a 480,000 annual ATM cap. In 2025, the airport handled 477,883 ATMs, of which 475,596 were passenger ATMs. Steer's 2025 starting figure of 473.7k is below the actual 2025 passenger ATM outturn, growing to 475.0k by 2031 ▪ Due to impacts related to the US-Iran conflict, movements could decline in 2026. Steer's current base case projects 474k passenger ATMs for 2026 (implying -0.3% y-y change from 2025 actual) ▪ **Assuming Steer's ATM forecast for 2026, Skylark proposes a recovery of passenger movements to the 2025 level by 2031. This assumption is conservative as, despite the transient nature of the conflict-induced shock, it assumes that several years are required to return to the 2025 level. Total movements (i.e. including freighters) remain below the 480k cap**
Average Aircraft Size	▪ Steer has projected average aircraft size to grow from c. 222 in 2025 to c. 233 by 2031 ▪ This increase in aircraft size reflects the upgauging of existing narrow-body aircraft operations to larger narrow-body / wide-body aircraft and the shift of short-haul slots to long-haul ▪ However, within the assumption, Steer has assumed a broad decline in A380 usage in H8. This is a conservative assumption given airlines such as Singapore Airlines and British Airways have recently reactivated and started refurbishment of these aircraft ▪ **Steer's base case assumption of 233 seats by 2031 is reasonable in the medium term and aligns with Skylark's overall estimate. However, Skylark believes that part of the assumption that sees a reduction in the A380 flights is conservative**
Seat Factor	▪ In 2025, LHR had a seat factor of 80%. There is a reasonable opportunity for LHR to increase the seat factor in the medium-term, especially for European flights (76%), when compared to the high seat factors of long-haul routes (82%-89%) ▪ LHR's seat factor is low compared to benchmark major European hub airports (82%-84%), reinforcing the potential to further improve seat factor to a target of 83%, within the current range of benchmarked hubs ▪ Even with the focus on premium passengers, airlines are expected to improve their ability to take more passengers within a slot-constrained airport. Further advancement in the use of artificial intelligence to optimise revenue management processes will also drive a step change in seat factor improvements over the medium term ▪ **Steer's proposed seat factor growth (80% in 2025 to 81.5% in 2031) is conservative compared to the potential seat factor optimisation in the medium term that Skylark proposes (c. 83% target)**
Passenger Output	▪ Steer's unconstrained forecast shows continued high growth of demand for LHR, with 99.1m passengers by 2031 ▪ Within the constrained movements forecast, the main adjustment proposed is an improved seat factor optimisation, supported by continued, strong demand for LHR within a constrained H8 operating environment ▪ **Based on the combined adjustments of passenger ATM, optimised seat factor, and increased aircraft size that Skylark proposes, 2031 passengers could reach 92.2m, 2% higher than Steer's forecast of 90.2m passengers (all constrained)**

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The CAA should reassess the inclusion/rationale of the shock factor. If it remains part of the traffic forecasting mechanism, Skylark proposes an improved approach to the calculations

Executive Summary | Shock Factor

Exclusion of 1991 Impact

- The shock factor is currently designed to include only historical, non-economic shock events since 1991. The CAA has concluded that Desert Storm in 1991 does not constitute an event of this definition as it coincides with the decline in the UK's GDP. However, the impact of the event is still being included in the calculation of the shock factor for H8
- **Skylark proposes a review of the shock factor so as to consider excluding the 1991 event. If 1991 were still to be included, the impact should at least be adjusted to reflect the overlap of the economic/non-economic shock events**
- **An alternative approach would be assuming a fixed 30-year period, with 1992-2019, 2024-2025 being the latest 30-year period (excluding the COVID-affected years)**

Weighting of the Historical Shock Factor

- The shock factor calculation applies similar weighting to events that occurred 30 years ago, when the airport, airlines and the passengers were more reactive and had less advanced mechanisms in adapting/mitigating shock events. In contrast, current airport management, airlines and passengers are more resilient and proactive in responding to and overcoming shocks, through real-time operational data, predictive analytics, technological and security advancements, and a wider geographical route mix
- The CAA itself, as part of the H8 business plan guidance, has emphasised that resilience would be an important priority in the H8 period and beyond
- **As such, Skylark proposes a straight-line weighting of the shock impact, from a notional 25% at the start of the 30-year period and 100% at the end of the shock period being considered. This reflects the increasing resilience of the airport, airlines and passengers over the decades, in mitigating and overcoming shock events that may occur**

Original Rationale for Shock Factor

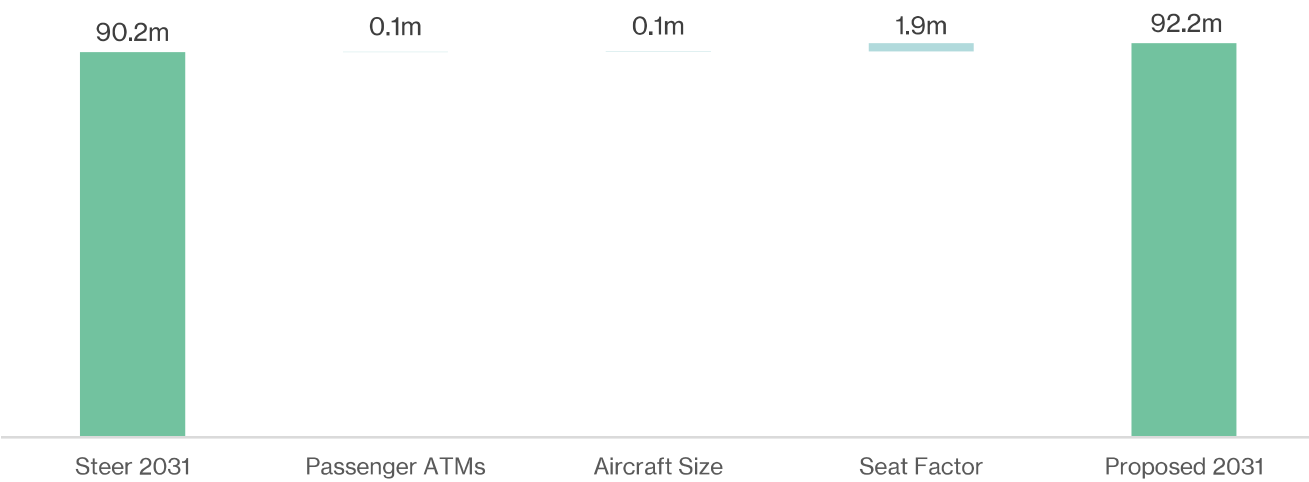
- CAA's rationale for the shock factor is primarily to "improve the accuracy of the forecasts, rather than provide compensation for risk"
- However, the application of the shock factor in the last 2 regulatory periods has widened the under-forecasting of traffic, by c. 5% in Q6 (2014-2018) and H7 (2022-2025)
- The shock factor estimates "15 million lost passengers" over the past 30 years. For context, this is lower than the cumulative under-forecasting of H7
- The widening of the under-forecasting due to the shock factor means passengers "pre-fund" the cost of "un-forecasted events" that may not materialise. If they occur, they should be managed through TRS
- **As such, Skylark proposes that the CAA reassess the effectiveness of the shock factor in improving the accuracy of the traffic forecast. If the shock factor continues to be part of the traffic forecasting mechanism, Skylark believes the adjustments outlined above provide a better alternative to the existing calculation approach**

Main proposed adjustments relate to seat factor optimisation, driven by AI advancement in revenue management and continued demand for LHR, within a constrained H8 operating environment

Executive Summary | Comparison of Traffic Assumptions

Region	Passenger ATMs			Aircraft Size			Seats (m)			Load Factor			Passengers (m)		
	Steer	**Proposed**	***Diff %***	**Steer**	**Proposed**	***Diff %***	**Steer**	**Proposed**	***Diff %***	**Steer**	**Proposed**	***Diff %***	**Steer**	**Proposed**	***Diff %***
Domestic	34.5	34.5	*0.0%*	177.2	177.2	*0.0%*	6.1	6.1	*0.0%*	77.4%	77.6%	*0.3%*	4.7	4.7	0.3%
Europe	242.7	242.7	*0.0%*	189.7	189.7	*0.0%*	46.1	46.0	*0.0%*	78.1%	80.2%	*2.7%*	36.0	36.9	2.7%
Africa	16.5	16.5	*0.0%*	271.3	271.3	*0.0%*	4.5	4.5	*0.0%*	84.6%	86.2%	*1.9%*	3.8	3.9	1.9%
North America	88.5	88.5	*0.0%*	279.7	279.7	*0.0%*	24.8	24.8	*0.0%*	83.5%	85.9%	*2.9%*	20.7	21.3	2.9%
Latin America	9.0	9.0	*0.0%*	285.2	285.2	*0.0%*	2.6	2.6	*0.0%*	88.7%	89.7%	*1.1%*	2.3	2.3	1.1%
Middle East	33.3	33.3	*0.0%*	341.4	342.0	*0.2%*	11.4	11.4	*0.2%*	83.7%	84.9%	*1.3%*	9.5	9.7	1.5%
Asia Pacific	50.4	51.1	*1.4%*	302.5	302.5	*0.0%*	15.3	15.5	*1.4%*	86.6%	87.1%	*0.5%*	13.2	13.5	2.0%
Total	**475.0**	**475.6**	***0.1%***	**232.8**	**233.0**	***0.1%***	**110.6**	**110.8**	***0.2%***	**81.5%**	**83.2%**	***2.1%***	**90.2**	**92.2**	**2.3%**

Proposed 2031 Forecast Difference



Passenger Growth CAGR (2025-2031)		
Region	**Steer**	**Proposed**
Domestic	0.5%	0.6%
Europe	1.0%	1.4%
Africa	1.8%	2.2%
North America	0.1%	0.6%
Latin America	0.8%	1.0%
Middle East	1.4%	1.6%
Asia Pacific	3.1%	3.4%
Total	**1.1%**	**1.5%**

Skylark sees the combined adjustments could result in the potential for LHR's H8 2031 traffic to be 2% higher than Steer's forecast

Executive Summary | Forecast Output (Unshocked)

Higher
Lower

	Steer Base 2031	HAL Base 2031	LACC Base 2031	Skylark Combined Adjustments 2031
ATMs (#)	475.0	473.9	474.0	**475.6**
Aircraft Size (seats)	232.8	234.1	227.8	**233.0**
Seat Factor (%)	81.5%	81.2%	84.7%	**83.2%**
2031 Passengers	**90.2m**	**90.0m**	**91.4m**	**92.2m**
Cumulative H8 Pax	**442.0m**	**439.6m**	**446.0m**	**447.6m**

Passenger ATMs Assumptions Review

LHR is constrained to 480,000 ATM cap. In 2025, the airport handled 477,883 ATMs, of which 475,596 were passenger ATMs and 2,287 freighters/others

Historical Movement Cap

- Having been a binding condition of the Terminal 5 planning decision in 2001, the ATM cap became operational in 2008, with total runway movements since being limited to 480k per year
- The airport's utilisation of the cap is typically between 95% and 100%
- In 2025, the airport was the closest it has been to this cap, at 99.56%, with 477.9k movements, of which 475.6k were passenger ATMs
- As a comparison, Steer, in its Initial Proposal forecast, had projected passenger ATMs of 473.7k for 2025 (based on actual data up to September 2025), growing to 475.0k by 2031

Historic ATMs and Movement Cap

 Source: HAL

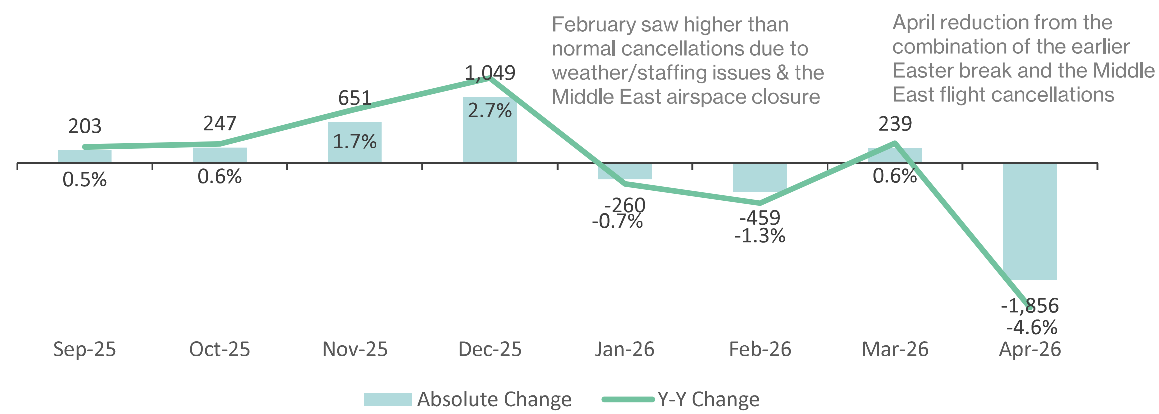
Due to the Iran War, movements could decline in 2026. However, 2027 could see the recovery/ normalisation of movements and passengers

2026 Latest ATM Outturn

- OAG's scheduled flights display a greater number of passenger flights than in actuality. However, looking at the relative growth of the airlines' schedules on 23rd February 2026 (prior to the Iran War) sees potential growth of c. 0.2% flights in 2026 vs 2025
- The Iran War conflict has led to a reduction in airlines' planned schedules for 2026. However, this impact may be temporary if geopolitical tensions stabilise this year
- In January-April 2026, LHR saw a reduction in total flights (passengers and cargo). In addition to the Middle East airspace closure and the ongoing Iran war impact, there were also cancellations due to weather/staffing issues
- During the same period, passenger traffic increased by 1.2% y-y, with non-Middle East traffic growing at 4.3% y-y. In March of 2025, traffic was partly impacted by the electricity substation fire at North Hyde
- While 2026 could see lower overall movements and slower passenger growth, it is likely that from the start of the H8 period, traffic will normalise higher, driven by the increasing resilience of Heathrow's airlines and network
- HAL, in its May 2026 press release, highlighted that "Underlying demand remains resilient, with strong transfer passenger demand continuing into April with a 10% increase year on year, as passengers reroute and benefit from Heathrow's world class direct connectivity to Asia and Oceania… Heathrow's resilient hub model sustains strong overall demand, as passengers are redistributed across the global network. "

LHR OAG Scheduled Passenger Flight Comparison

LHR Change in Actual Flight Movements (Passengers & Cargo)



Note: OAG have higher scheduled passenger flights compared to actual reflecting cancellation/non operating flights etc

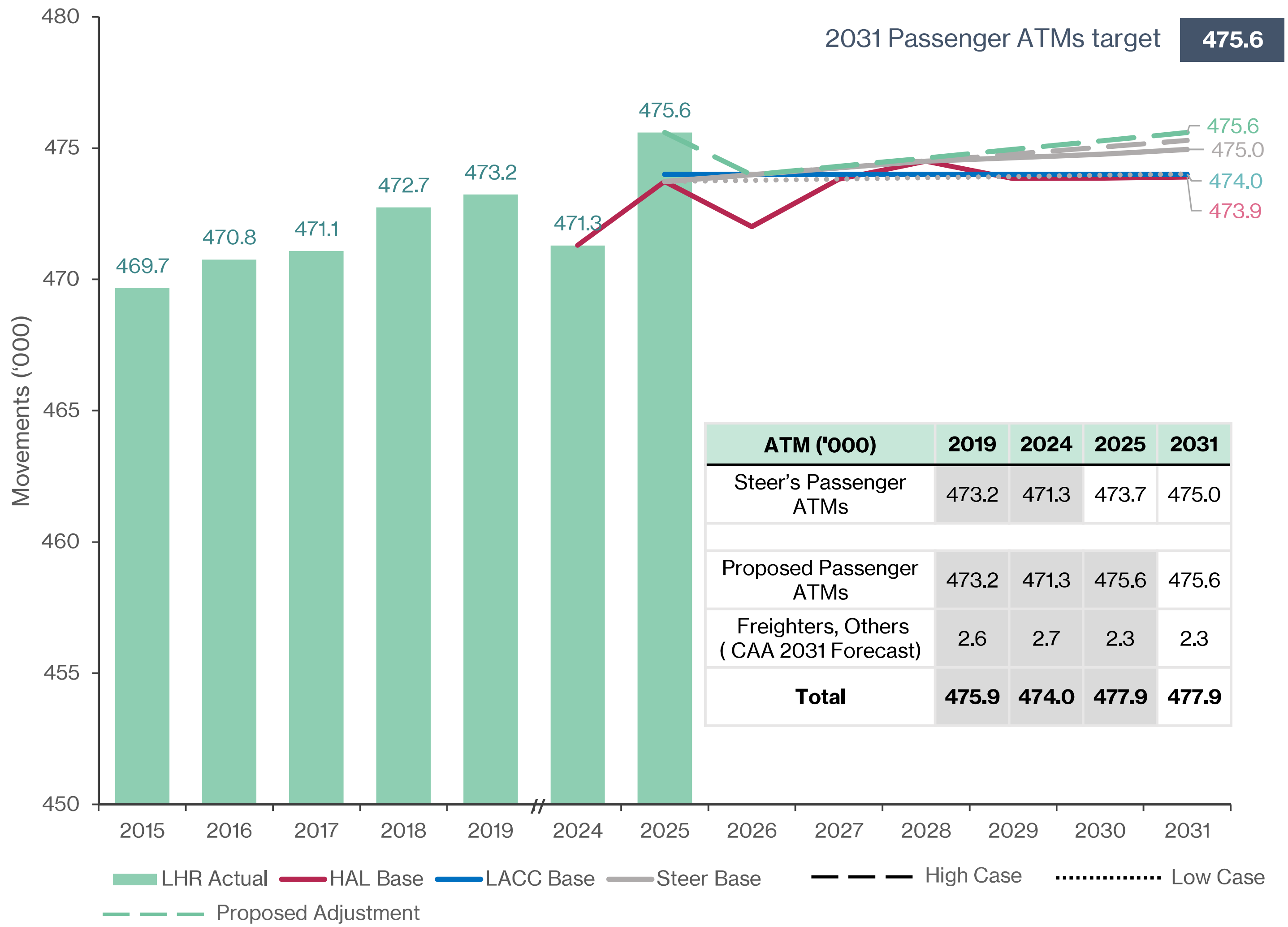
Source: OAG, HAL, CAA

Actual 2025 passenger movements are already higher than the medium-term forecast. Using Steer's lower 2026 forecast level, Skylark proposes a gradual recovery towards the 2025 level

Passenger ATM Forecast

- The 2025 passenger ATMs of 475.6k already exceeds all forecast figures. As a comparison, Steer assumes 474.95k passenger ATMs by 2031
- 2026 would likely see lower passenger ATM levels. Steer's current base case projects 474k passenger ATMs for 2026 (implying -0.3% y-y change)
- Assuming Steer's ATM forecast for 2026, it is reasonable to assume the movements to then recover towards the 2025 level by 2031
- The assumption is reasonable, allowing resilience for the passenger movements to continue to grow, while the total movements (including freighters) still remain below the 480k cap
- There is further upside of incremental increases, as LHR could prioritise passenger ATMs over freighter ATMs in the medium term, as highlighted by Steer - "airports tend to experience a gradual shift toward commercial passenger services, driven by consistently stronger demand and more favourable economics compared to cargo and general aviation"

Passenger ATM Forecast Comparison



ATM ('000)	2019	2024	2025	2031
Steer's Passenger ATMs	473.2	471.3	473.7	475.0
Proposed Passenger ATMs	473.2	471.3	475.6	475.6
Freighters, Others (CAA 2031 Forecast)	2.6	2.7	2.3	2.3
Total	**475.9**	**474.0**	**477.9**	**477.9**

Note: Skylark's adjustment using Steer's base case for 2026, growing towards 475.6k by 2031

 Source: HAL, Steer, CAA, LACC

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Aircraft Size Assumptions Review

British Airways have plans to expand their fleet to larger aircraft in coming years, while Virgin focusing on premium cabin retrofit

Main Airline Latest Medium-term fleet plan

	BRITISH AIRWAYS	virgin atlantic
Current Fleet	280+ aircraft	43 aircraft
Primary OEM Partner	Airbus + Boeing Narrow and wide-body aircraft	Airbus + Boeing wide-body aircraft
Key 2025-2031 Deliveries	6x A350-1000 24x 777-9 (shared IAG, first deliveries 2027+) 32× 787-10 68x A320neo (shared IAG) 2x A321XLR (shared IAG)	A330-900 (+10) from Q3 2026
Fleet renewal driver	Replace aging 777-200s (avg ~25 yrs)	Replace A330-300 Premium cabin retrofit (787-9)
Fleet size target	~310 aircraft (c.2034)	~45 aircraft (c. 2028)

 Source: Aer Lingus, Ryanair, British Airways, IAG

Steer has assumed a broad decline in A380 usage in H8. This is conservative given airlines' recent reactivation / refurbishment. They will likely continue to maintain A380 operations out of LHR

A380 Operators at LHR

	Flights			
Carrier Name	**2019**	**2025**	**Average Size (seats)**	**Latest Strategic Indication**
British Airways	5,096	5,385	469	Plans to fully refurbish all 12 to premium cabins (reducing from 469 to 421 seats) by late 2026-27. Investment indicates continued use of A380 is expected within the H8 period
Emirates	4,238	4,380	517	Currently retrofitting all 15 of its two-class configurations into new 3-class seating (569 seats) . LHR is operated by the existing 3-class 517 aircraft. Strong potential for continued use and further introduction of the new 3-class aircraft
Etihad Airways	2,143	1,668	486	In early 2026, reactivated the 8th A380 that was stored during the pandemic, reversing its early strategy to indefinitely halt the A380 fleet operations. Part of the reason was the increase in long-haul premium demand. This reversal offers greater seat count on high-density routes (including from Heathrow)
Singapore Airlines	1,584	1,346	471	Recently invested in updated premium cabins. Has recently increased A380 flight frequencies for 2026 to key markets including London Heathrow, Sydney, and Dubai. Strong potential for continued medium-term use
Qatar Airways	1,460	1,328	517	Recently reversed previous plans to retire the A380. The airline is extending operations to serve high-demand, slot-constrained routes, including Doha to London Heathrow for 2026 summer
Qantas Airways	730	728	485	Reactivated the final 2 stored A380s to return to a 10-aircraft fleet and undergoing heavy maintenance and cabin upgrades. The airline only plans to begin phasing out the A380 around 2032
Total	**15,251**	**14,835**	**490**	**Assuming flat flight level for BA's A380 (with lower aircraft size), and the potential for inbound foreign airlines to restore towards similar flight frequencies as in 2019 - by 2031, could see c. 11% higher seat capacity operated by A380 vs 2025**

 Source: OAG, Aerospace Global News

Note: Total excludes previous operators

Through upgauging, LHR's increase in aircraft size to c. 230+ in the medium term is reasonable. LHR will likely see the latest narrow/wide-body aircraft being used as they join airlines' fleet

Impact of Aircraft Upguaging

- From the 2025 traffic base, Skylark has made a bottom-up assessment of potential aircraft upguaging by 2031 to sense-check the potential growth assumed by Steer
- The analysis reflects the following:
  - BA's potential upguaging opportunity in the medium term
  - The foreign airlines' planned aircraft orders and trend in aircraft upguaging
  - The recent reactivation and refurbishment of A380s by airlines
  - The fact that Virgin's fleet delivery and retrofit to more premium configuration will have minimal impact on the overall potential aircraft size increase
- Based on the analysis, it is reasonable to see the upguaging to result in the aircraft size to grow to more than 231 seats by 2031

Aircraft Upguaging Impact on LHR's average aircraft size , 2025 vs 2031

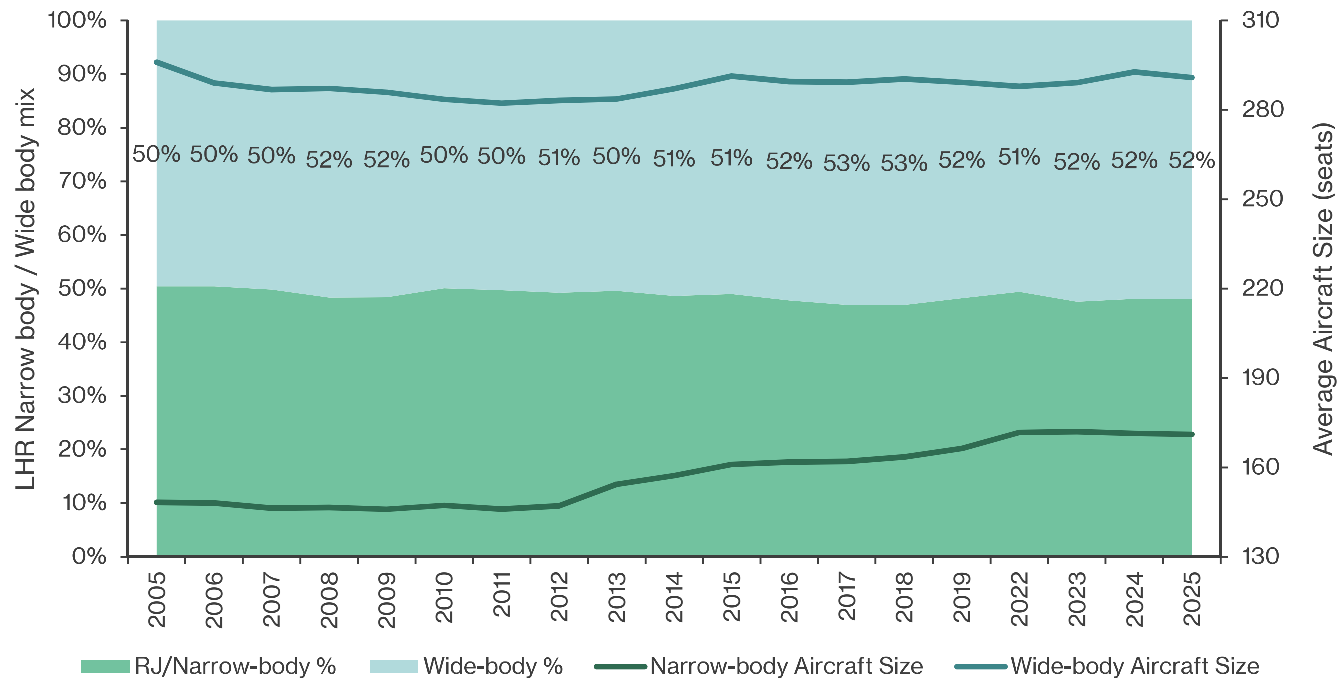
 Source: LACC, CAA, Steer

Historically, wide-body aircraft mix has seen gradual increase, mainly reflecting the increase in long-haul markets. Further increase in long-haul movements will support higher aircraft size

Wide-body vs Narrow-body Mix

- Long-haul markets have markedly higher aircraft size requirements compared to narrow-body aircraft operations
- Even within the current capped environment, it is reasonable to assume a continued incremental increase in long-haul ATM mix as well as wide-body mix (including within the short-haul markets)
- Historically, the share of the UK/Europe passenger ATMs has declined from 64% in 2015 to 60% in 2025. By 2031, Steer has assumed the shift towards 58%. This is reasonable, taking into account the continued increase in long-haul flights, albeit transitioning at a lower rate compared to historical
- Applying the higher mix shift of long-haul flights, the aircraft size increase is estimated to grow to c. 233 seats by 2031
- The level of increase in aircraft size is reasonable, similar to Steer's base case assumption, and slightly lower to HAL's forecast of 234 seats

LHR Narrow-body/wide-body and average aircraft size evolution



LHR Passenger ATMs Mix by Short/Long-haul regions

Region Type	2015	2025	2031 (Steer)	Change 2015-25	Change 2025-31
UK/Europe	63.5%	60.0%	58.4%	-3.5%	-1.6%
Others	36.5%	40.0%	41.6%	3.5%	1.6%

 Source: LACC, CAA, Steer

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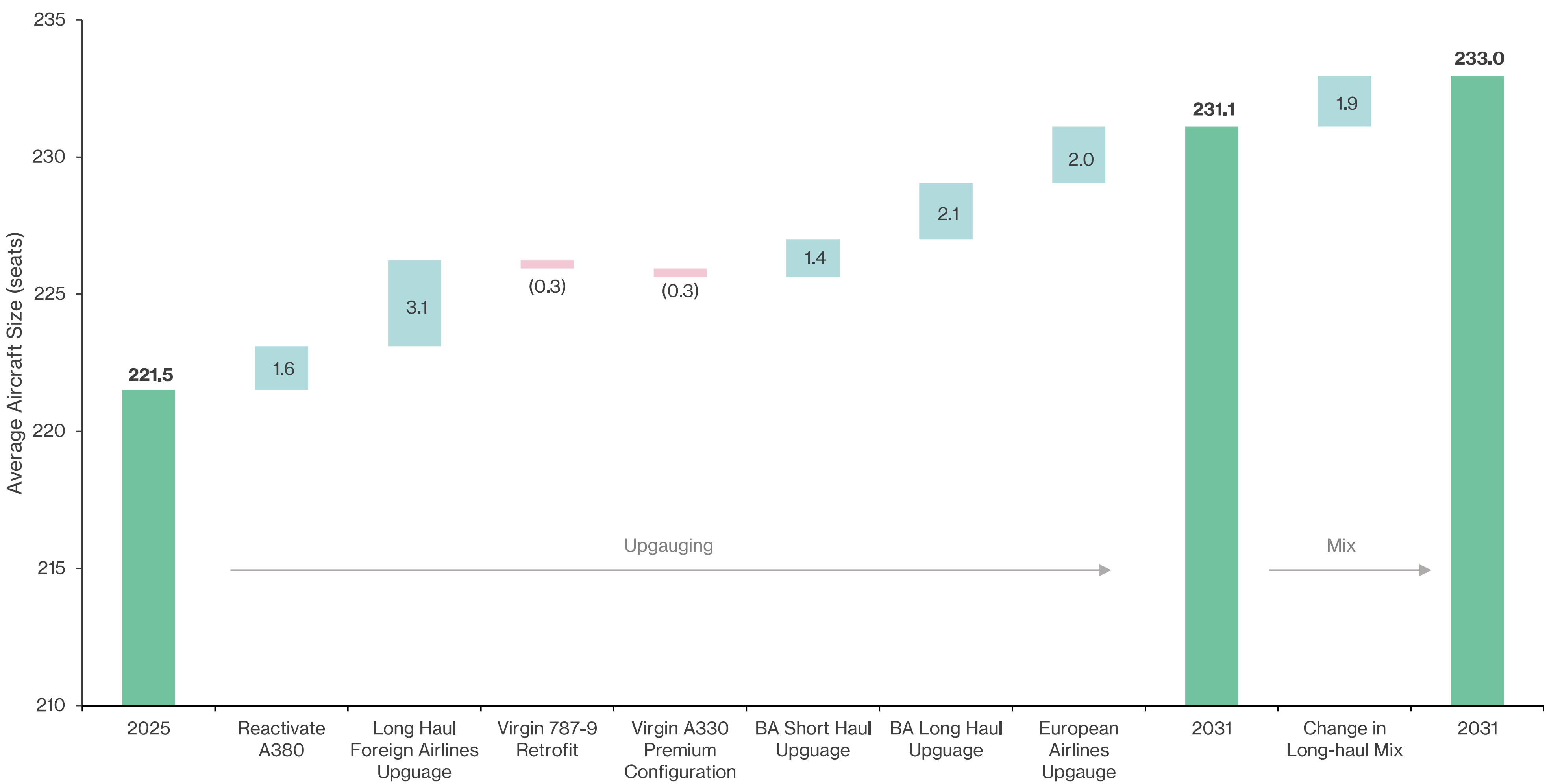
The increase in aircraft size reflects upguaging of existing narrow-body aircraft operations to larger narrow-body / wide-body aircraft and the shift of short-haul slots to long-haul

Potential Aircraft Seat Size Evolution



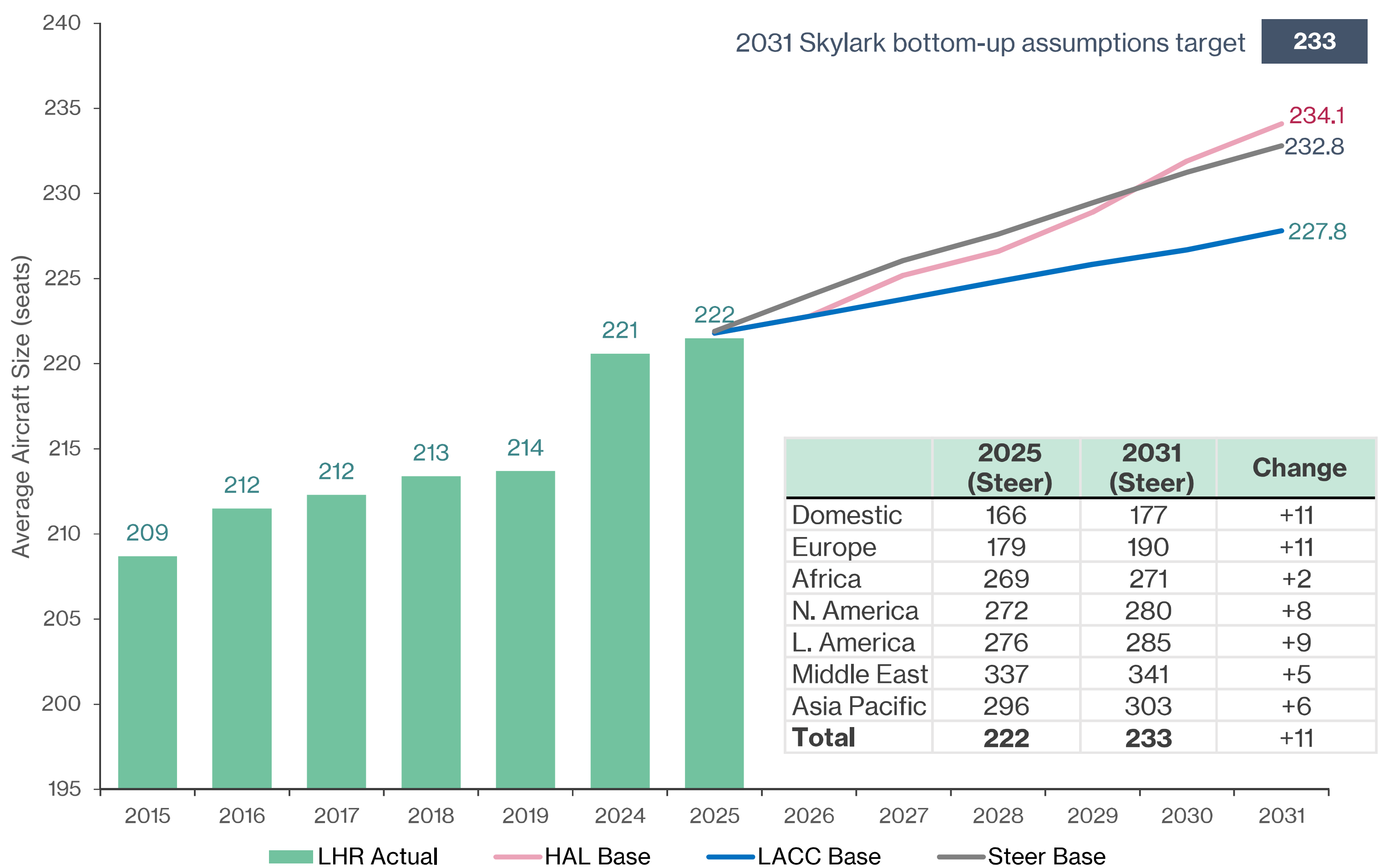
 Source: LACC, CAA, Steer

Steer's base case assumption of 233 seats by 2031 is reasonable in the medium term, similar to Skylark's estimate

Aircraft Size Forecast

- The increase in aircraft size reflects the shift of short-haul slots to long-haul growth opportunity as well as upguaging of existing narrow-body aircraft operations to larger narrow-body / wide-body aircraft
- Steer's base case aircraft size assumption is at 233 by 2031. The final output of the average aircraft size growing to 233 by 2031 (+11 seats) is reasonable, with further potential upside
- Steer's forecast is higher than LACC's assumption of 228. However, the forecast of 233 seats is relatively similar to LACC's initial constructive engagement forecast of 231 seats
- Slot constraints will continue to incentivise airlines with a large slot portfolio to prioritise long-haul markets, encouraging higher average aircraft size

Average Aircraft Size Forecast



	2025 (Steer)	2031 (Steer)	Change
Domestic	166	177	+11
Europe	179	190	+11
Africa	269	271	+2
N. America	272	280	+8
L. America	276	285	+9
Middle East	337	341	+5
Asia Pacific	296	303	+6
Total	**222**	**233**	+11

Source: HAL, Steer, CAA, LACC

Seat Factor Assumptions Review

In 2025, LHR had a seat factor of 80%. LHR's low season seat factor is relatively low compared to other hub airports

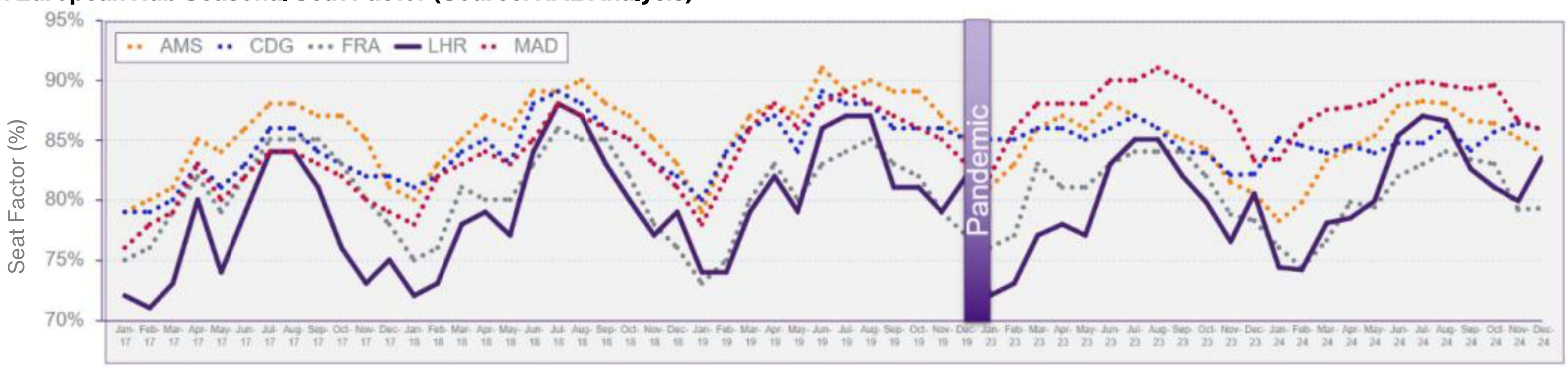
Seasonal Seat Factor

LHR Monthly Seat Factor

	2017	2018	2019	2024	2025	2026est.	18 vs 17	19 vs 18	24 vs 19	25 vs 24	26 vs 25	17-25/26 CAGR
Jan	73%	71%	73%	73%	74%	75%	-1.8%	2.5%	0%	0.6%	1.9%	0.4%
Feb	72%	72%	73%	73%	73%	74%	1.1%	1.5%	0%	-1.0%	2.1%	0.4%
Mar	74%	78%	77%	78%	74%		5.2%	-1.3%	1%	-5.0%		0.0%
Apr	81%	78%	80%	78%	80%		-3.2%	2.4%	-2%	2.0%		-0.2%
May	75%	77%	77%	79%	79%		2.0%	0.9%	3%	-0.9%		0.6%
Jun	79%	83%	84%	85%	83%		5.0%	0.9%	1%	-1.7%		0.6%
Jul	85%	87%	86%	87%	87%		2.6%	-1.1%	1%	-0.4%		0.2%
Aug	84%	86%	86%	87%	87%		2.2%	-0.2%	1%	0.3%		0.4%
Sep	81%	82%	82%	83%	83%		1.1%	-0.1%	2%	-0.3%		0.3%
Oct	77%	79%	80%	80%	81%		3.1%	0.6%	1%	1.0%		0.7%
Nov	73%	76%	77%	78%	78%		3.8%	0.7%	2%	-0.6%		0.7%
Dec	78%	79%	81%	82%	81%		0.4%	2.5%	2%	-1.5%		0.5%
Total	**78%**	**79%**	**80%**	**81%**	**80%**		**1.8%**	**0.7%**	**0.9%**	**-0.6%**		**0.3%**

- LHR's low season seat factor historically reaches values of c.71-75%, markedly lower than benchmark airports including AMS, CDG and MAD
- High-season seat factors fall more in line with benchmark airports
- This implies that there is an opportunity in the low and shoulder seasons to improve seat factor and thus increase traffic

Main European Hub Seasonal Seat Factor (Source: HAL Analysis)



 Source: CAA, OAG, HAL

Note: 2026 estimated based on the relative OAG schedule data

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Reasonable opportunity for LHR to increase the seat factor in the medium-term, especially for Europe (76%), when compared to the high seat factors of the long-haul regions (82%-89%)

LHR Monthly Seat Factor by Region

- Long-haul sectors have higher seat factor than the short-haul sector
- Latin America has the highest seat factor across the year, peaking at more than 90% in the shoulder and summer months. This is reflective of the higher demand with limited supply of capacity to cater to the Latin American market
- With continued unconstrained demand expected by airlines/passengers for LHR, and restricted flight expansion, it is reasonable to expect that the other long-haul markets will continue to increase its seat factor over time, in the shoulder periods as well the winter period
- This is in addition to the potential opportunity for some of the home airlines to optimise its seasonal operation by shifting the European flights (which have lower seat factor) to long-haul flights, especially during the winter period

LHR Monthly Seat Factor by Region (Source: UK CAA)

	2024												
Region	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
UK	71%	73%	77%	76%	77%	81%	82%	81%	79%	74%	71%	72%	**76%**
Europe	67%	69%	74%	76%	77%	82%	85%	85%	80%	78%	74%	78%	**77%**
Africa	83%	84%	82%	82%	81%	86%	89%	89%	86%	82%	80%	82%	**84%**
North America	71%	66%	80%	78%	84%	90%	90%	89%	85%	84%	80%	89%	**83%**
Latin America	85%	85%	87%	85%	87%	92%	93%	93%	92%	89%	87%	85%	**88%**
Middle East	82%	85%	78%	79%	73%	79%	89%	91%	83%	82%	86%	89%	**83%**
Asia	84%	86%	84%	82%	83%	89%	92%	90%	87%	82%	84%	86%	**86%**
Total	**73%**	**73%**	**78%**	**78%**	**80%**	**85%**	**87%**	**87%**	**83%**	**80%**	**78%**	**83%**	**81%**

	2025												
Region	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
UK	62%	64%	68%	76%	78%	80%	82%	84%	80%	77%	71%	72%	**74%**
Europe	65%	67%	69%	77%	76%	81%	84%	85%	81%	79%	74%	77%	**76%**
Africa	84%	82%	75%	84%	80%	84%	89%	90%	87%	84%	80%	82%	**83%**
North America	75%	70%	80%	80%	82%	88%	90%	88%	84%	84%	82%	89%	**83%**
Latin America	86%	85%	83%	88%	88%	91%	94%	93%	93%	90%	91%	88%	**89%**
Middle East	86%	84%	72%	85%	75%	76%	87%	92%	81%	81%	80%	85%	**82%**
Asia	88%	86%	82%	84%	83%	88%	91%	89%	87%	83%	82%	83%	**86%**
Total	**74%**	**73%**	**74%**	**80%**	**79%**	**83%**	**87%**	**87%**	**83%**	**81%**	**78%**	**81%**	**80%**

Y-o-Y Change

Region	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
UK	-12.5%	-12.9%	-11.5%	-0.3%	1.5%	-1.5%	0.6%	4.5%	2.0%	2.9%	-0.4%	-0.9%	-2.6%
Europe	-2.9%	-3.1%	-6.4%	0.4%	-1.6%	-1.1%	-0.8%	0.5%	0.4%	1.5%	0.0%	-1.1%	-1.1%
Africa	0.6%	-2.7%	-8.5%	1.9%	-1.5%	-2.4%	0.0%	0.7%	1.4%	2.1%	-0.8%	-0.2%	-0.8%
North America	5.7%	6.5%	-0.4%	2.8%	-1.7%	-2.3%	0.7%	-0.9%	-1.9%	0.3%	1.9%	-0.7%	0.5%
Latin America	1.1%	-0.8%	-4.4%	3.3%	1.9%	-0.8%	1.7%	0.3%	1.2%	1.3%	4.4%	3.0%	0.9%
Middle East	5.1%	-1.2%	-7.0%	7.4%	2.2%	-3.7%	-1.8%	1.4%	-1.9%	-1.8%	-7.1%	-4.6%	-1.1%
Asia	5.1%	0.5%	-2.5%	2.2%	-0.3%	-0.4%	-1.0%	-0.8%	0.2%	1.6%	-2.3%	-2.9%	-0.1%
Total	**0.6%**	**-1.0%**	**-4.9%**	**2.0%**	**-0.9%**	**-1.7%**	**-0.4%**	**0.3%**	**-0.3%**	**1.0%**	**-0.7%**	**-1.5%**	**-0.6%**

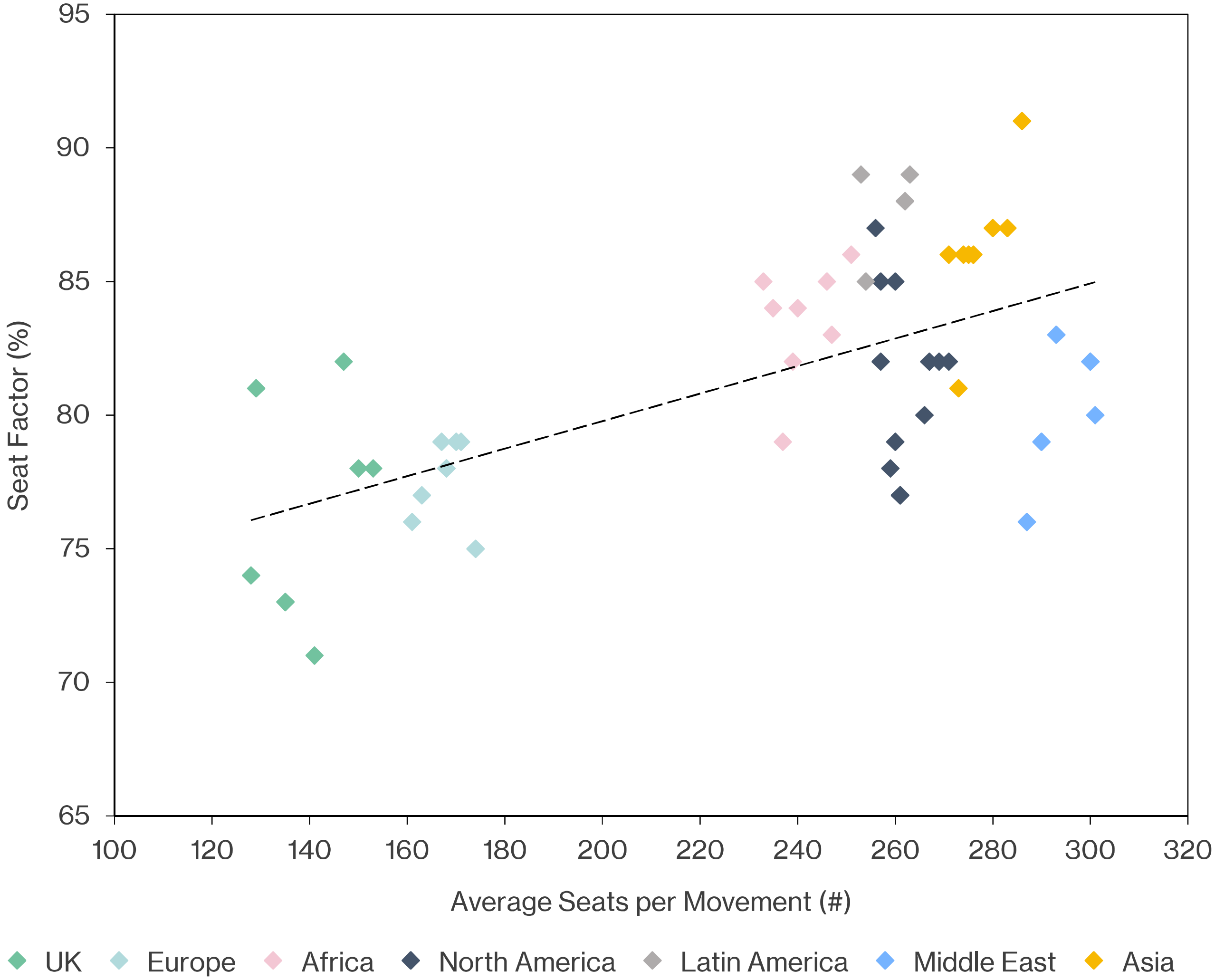
Source: CAA

Note: Easter difference between 2024/25 and the substation fire resulting in the March 2025 dip. Combined, March-April seat factor growth was c. -1% y-y

Historical data back to 2016 indicates that even as aircraft size increases, seat factors also eventually rise at Heathrow

Seat Factor and Aircraft Size

LHR Historic Seat Factor and Average Seats per Movement (2016-2025, excl Covid)



- Historical implied seat factor by region indicates a positive relationship between average seats per movement and seat factors across all regions – as aircraft size increases, airlines tend to achieve a higher proportion of seats filled
- This relationship is consistent across geographical and operationally-diverse regions, and is an established principle in both revenue management and fleet planning
- The relationship is in part a function of statistical margin: On a 100-seat aircraft, a 3-seat overbooking buffer represents 3% of capacity. On a 300-seat aircraft, the same buffer represents 1%
- As aircraft size increases, overbooking models can be applied more precisely relative to total capacity, reducing the risk of either underselling or overselling a slight
- This allows larger aircraft to be filled more consistently, contributing to the observed increase in seat factor
- Seat factor has grown alongside capacity over the past decade, and LHR's slot constraint acts as a structural driver of both increasing aircraft size and seat factors

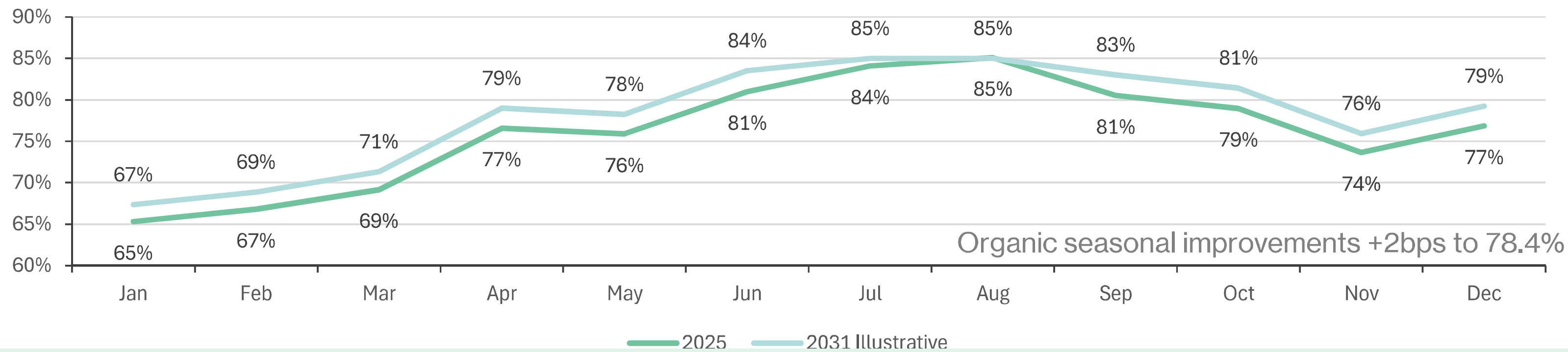
Source: HAL, CAA, OAG

Even without the AI optimisation, it is reasonable to assume Europe's seat factor to continue to improve on the back of organic demand growth and limited flight expansion

Illustrative Dynamic of European Seat Factor Increase

- Heathrow is operating with a constrained ATM cap. It is reasonable to expect that, over time, the short-haul European flights will incrementally reduce, making way for more long-haul flights
- At the same time, demand for the European markets will still continue organically
- Assuming a uniform 1.2% CAGR organic growth for the European traffic (c. 0.9x UK GDP), and applying Steer's assumptions regarding Europe's ATM reduction and aircraft size increase, Skylark has illustrated how the seat factor could reasonably grow organically towards 78.4% by 2031, higher than Steer's more conservative seat factor of 78%, and still reflecting HAL's argument of some short-haul carriers block seats for premium passengers (implied from the capped 85% peak seat factor)
- With the additional step change in AI optimisation of revenue management/seat factor, it is reasonable to see Europe's seat factor grow towards 80%

Europe Illustrative Build-up of LHR's Seat Factor (2025 vs 2031) based on uniform demand growth of 1.0% CAGR



Metric	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total pax increase(+1.2% CAGR, 85% capped)	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	0.9%	0.7%	1.2%	1.2%	1.2%	1.2%	1.1%
ATM Change (-0.3% CAGR)	-351	-330	-353	-375	-391	-379	-391	-393	-377	-385	-351	-362	-4438
Aircraft Seat Increase (+1.0% CAGR)	11	11	11	11	11	11	11	11	11	11	11	11	11
Seat Capacity	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%

 Source: CAA (excluding hidden traffic)

Further advancement in artificial intelligence in airline revenue management system will be a step change in supporting the medium-term load factor improvements

AI Revolution in Airline Revenue Management System

- The advancement of AI and the New Distribution Capability (NDC) will revolutionise airlines' revenue management by supporting higher efficiency in the airline business. The technology will enable airlines to precisely price fares, in real-time, attracting 'the right passengers at the right time and the right price point' – resulting in the increase in load factor
- The AI advancement will enhance forecast accuracy, enable continuous and personalised pricing, optimise fare classes, and improve overbooking strategies, leading to higher load factor and better seat inventory utilisation
- The New Distribution Capability (NDC) plays a core enabling role in facilitating continuous pricing, providing a standardised framework for distributing pricing to customers through third-party channels
- BA in 2025 highlighted that they have invested £100m in cutting-edge technology, introduced as part of British Airways' £7bn transformation investment programme
  - *AI, forecasting, optimisation and machine learning have transformed the airline's operational performance and become an integral part of getting customers to where they need to be with minimal delay to their travel plans*

  (May 2025 https://mediacentre.britishairways.com/news/14052025/british-airways-improves-on-time-performance-as-world-leading-technology-boosts-flight-punctuality)

  - *BA is also deploying a new payment platform and new revenue management system, enabling it to optimize pricing and retire its existing 20-year old technology. … a more modern revenue management system, which is currently being tested with a full migration planned for later this year, will enable the airline to implement advanced data analytics and use AI*

  (February 2025 https://www.phocuswire.com/british-airways-transformation-it-systems-customer-experience)

1980 – 1990 Leg based RM → **1990 – 2000** Network RM → **2000 – 2010** Choice based RM → **2010 – 2020** Dynamic pricing → **2020+** Continuous Pricing/ AI Optimisation

 Source: OAG, Amadeus, travelweekly, various industry research

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The implementation of AI in airline revenue management will lead to structural shift in the growth of airlines' load factors. This step-change should be reflected within the H8 forecast

AI Revenue Management Impacts on Load Factors

AI Revolution in RMS Optimisation	Example Case Study / Research
Forecasting Accuracy AI is able to automatically ingest big data, massive structured/unstructured datasets across different domains, and is able to quickly adapt to changes in market environment. This enables real-time, automated demand forecasting and precise estimation of customer willingness-to-pay, ultimately maximising revenue and increasing load factor	***AI Platform - Amadeus* Active Forecast Adjustment** SAS piloted the new demand forecast system, resulting in a gain of 30% forecast accuracy from COVID-19 baseline. Results showed that a 10% increase in forecast accuracy can generate a 1% increase in revenue, part of which will drive the increase in load factor ***AI Platform - Fetcherr Large Market Model*** By bridging pricing and inventory forecasting into a single AI process, the platform is able to achieve a revenue uplift of more than 10% in optimised revenue streams. These transformations translate directly to improved load factors
Continuous Personalised Pricing AI enables continuous, real time price evaluation (live demand, booking pace, competition, geopolitical/ local/weather conditions, etc). By offering personalised price points and bundling to maximise booking conversion via NDC, airlines can better match price to demand, allowing more marginal seats to be sold, resulting in the increase in load factor	**Research - Continuous pricing algorithms for airline RM (Szymański et al. , 2021)** A study evaluating the shift from discrete pricing to continuous classless pricing showed potential increase in network load factor of c. +2 percentage point **Research - Airline revenue management with segmented continuous pricing: methods and competitive effects (Long, Y. & Belobaba, P. ,2023)** The study showed airlines transitioning towards NDC-enabled continuous pricing showed 3-5 percentage points improvement in load factor
Fare-Class Optimisation AI is able to replace manually managed and rigid fare bucket optimisation with fluid, dynamic fare boundaries that is able to learn and adapt to real-time changes in market condition and context to determine the optimal trade-off between accepting early booking or holding a seat	**Research - Operationalizing Agentic AI for Airline Revenue Management at Scale (Nutakki S. ,2026)** The study showed that the AI implementation successfully balanced price and load factor simultaneously, achieving significant improvements over the baseline legacy approach. The AI system reduced spoilage and increased the load factor by +1.5 percentage points
Overbooking Optimisation AI allows precise/individualised no-show probability estimation and supports proactive incentivisation strategies. This drives rapid, real-time seat inventory optimisation across direct and indirect channels, drastically reducing seat spoilage and maximising load factors	***Research - AI Autonomous Airline Revenue Management: A Deep Reinforcement Learning Approach to Seat Inventory Control and Overbooking (Shihab et al. , 2019)*** Deep Reinforcement Learning agents can autonomously manage inventory. Research shows the " agent was able to learn overbook in such a way that flight would be mostly full after cancellations" ***AI Platform - Volantio Re-Commerce Platform*** Volantio's platform redistribute or reassign passengers across flights to achieve a more optimal passenger load on less popular flights. This helps to improve the load factors across multiple flights and optimises overall use of seat capacity

 Source: Amadeus, Fetcherr, Volantio, various industry research

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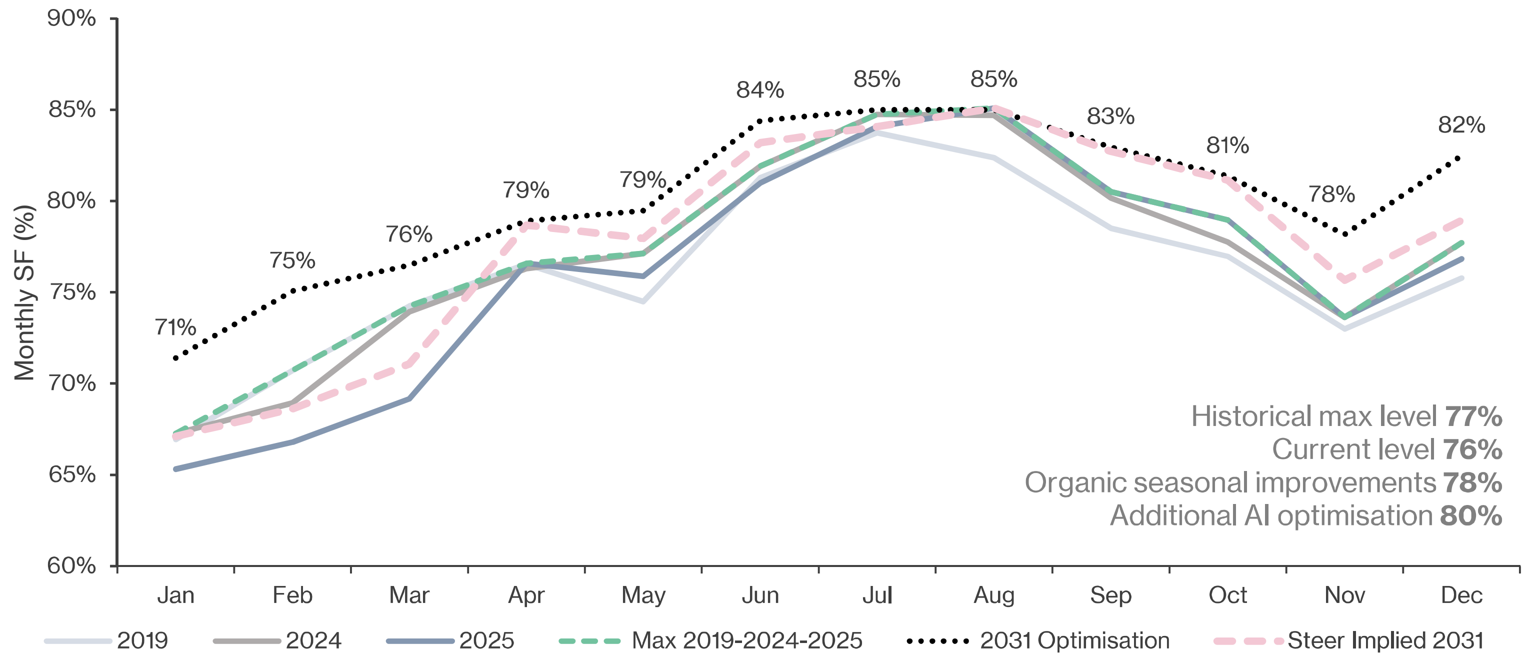
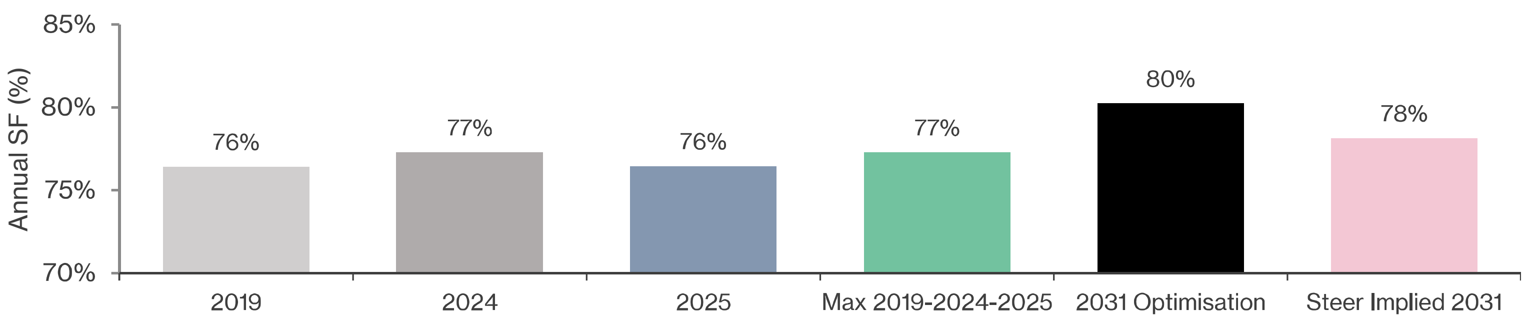
Conservative seat factor growth assumption by Steer for Europe by 2031. Reasonable to assume further seasonal seat factor optimisation to c. 80% by 2031

Europe Seat Factor Optimisation Potential

- European flights have a suboptimal seat factor under 80%
- In 2024, the seat factor was 77%, slightly reducing to 76% in 2025
- Reduction in 2025 was mainly driven by the weak 1st quarter of 2025, with the rest of the year returning to similar level as 2024
- It is reasonable to see improved seat factor to 80% within the span of 7 years, from the potential medium-term improvements in AI optimisation, improvements in the aircraft size/cabin offering, coupled with the limited slot expansion
- As a comparison, Steer's seat factor assumption for Europe is pessimistic, not reflecting airline's potential structural shift in adopting more sophisticated seat factor optimisation through the support of AI initiatives

Europe Seat Factor Baseline vs Optimisation





Source: Steer, HAL, CAA

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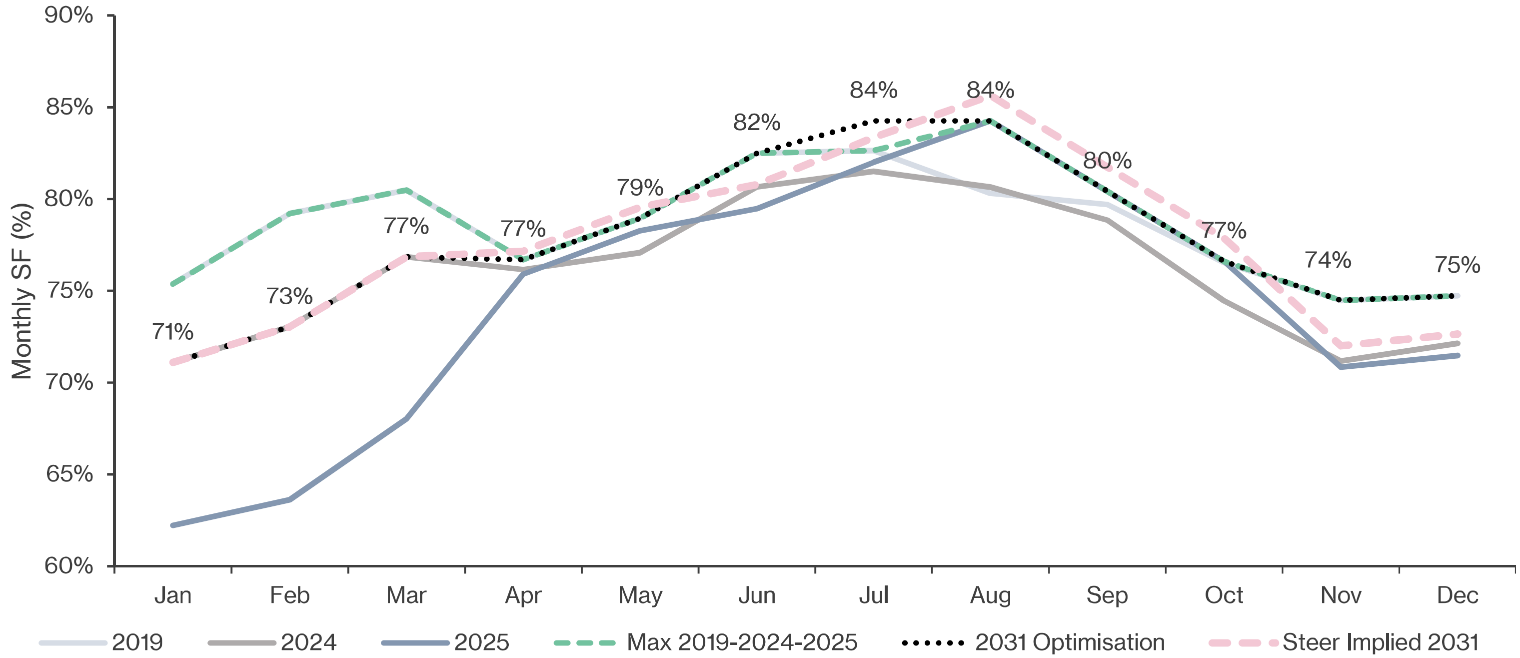
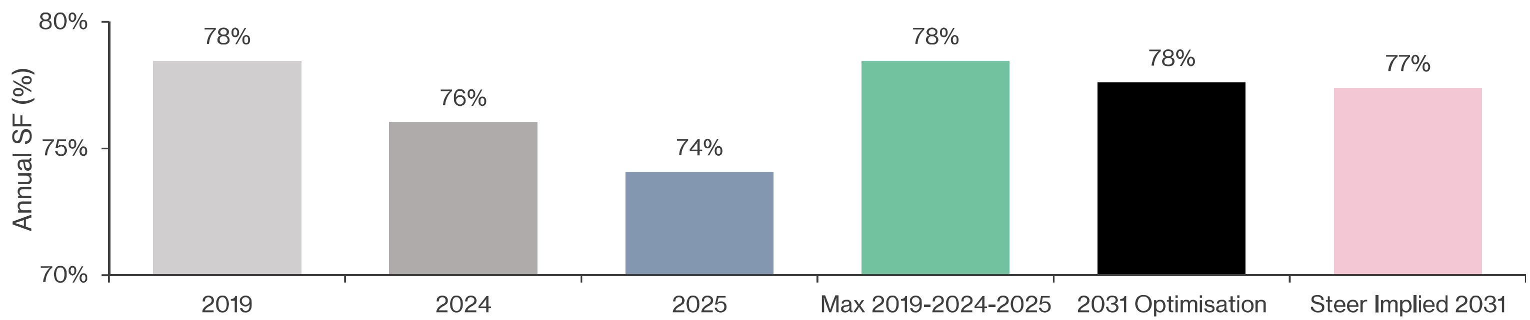
Reasonable to assume further seasonal seat factor optimisation to c. 78% by 2031, higher than Steer's assumption of 77%

United Kingdom Seat Factor Optimisation Potential

- Domestic flights have relatively lower seat factor
- In 2024, the seat factor was 76%, reducing to 74% in 2025
- Reduction in 2025 was mainly driven by the one-off weaker Q1 2025
- This was partially due to significant disruption as a result of the North Hyde substation fire in March, which shut the airport for a day and affected over 270k journeys

United Kingdom Seat Factor Baseline vs Optimisation





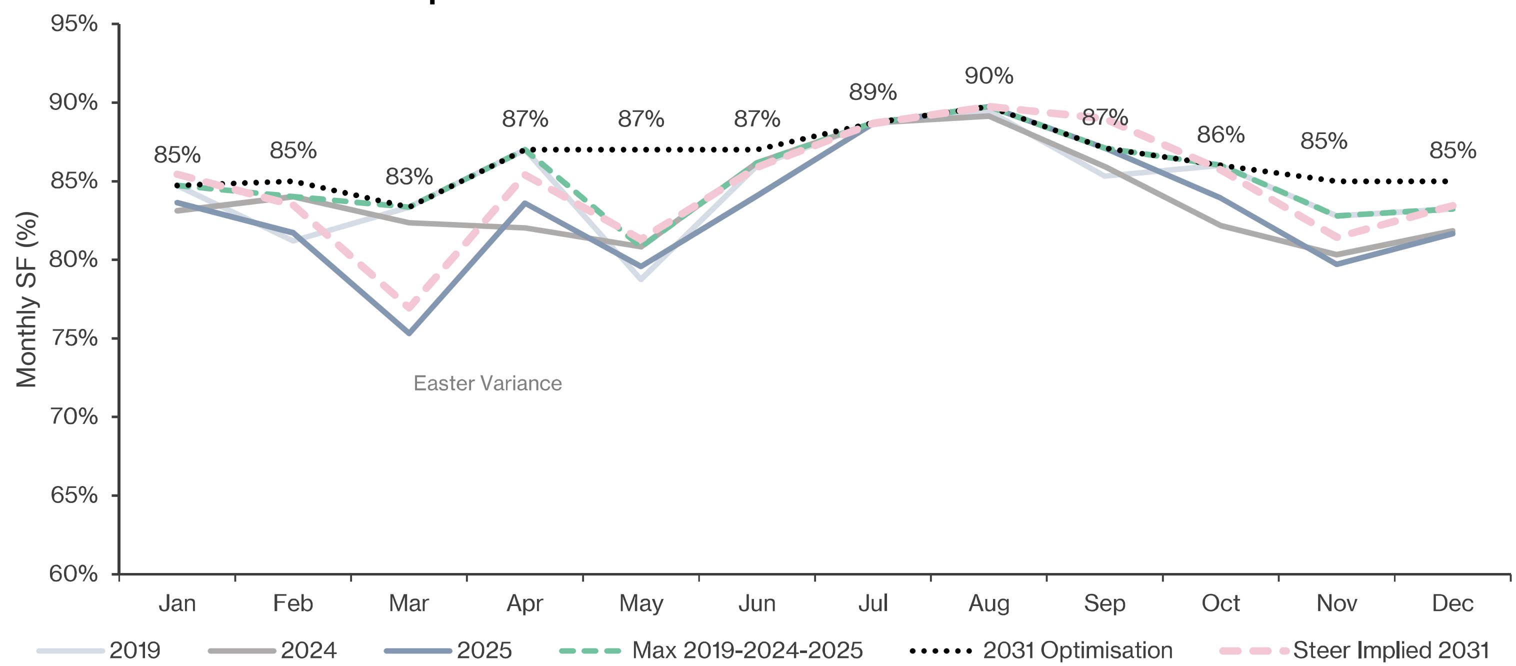
 Source: Steer, HAL, CAA, BBC

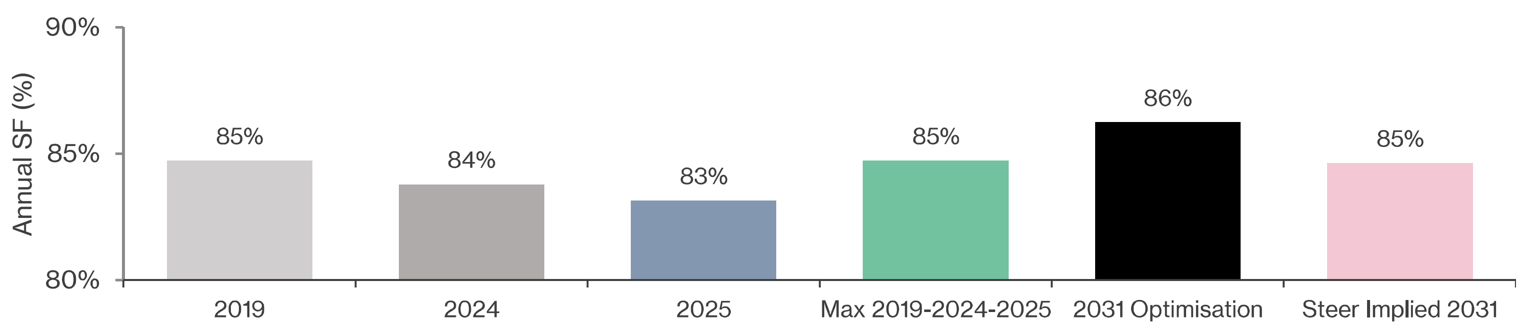
Reasonable to assume further seasonal seat factor optimisation to c. 86% by 2031, higher than Steer's assumption of 85%

Africa Seat Factor Optimisation Potential

- African flights have relatively high seat factor during the peak summer season
- It is reasonable to expect, given the limited slot expansion, that the high growing African markets will see further improvements in the seat factor throughout the year, with potential seat factor improvements target of 86% by 2031, compared to 85% in 2019

Africa Seat Factor Baseline vs Optimisation





 Source: Steer, HAL, CAA

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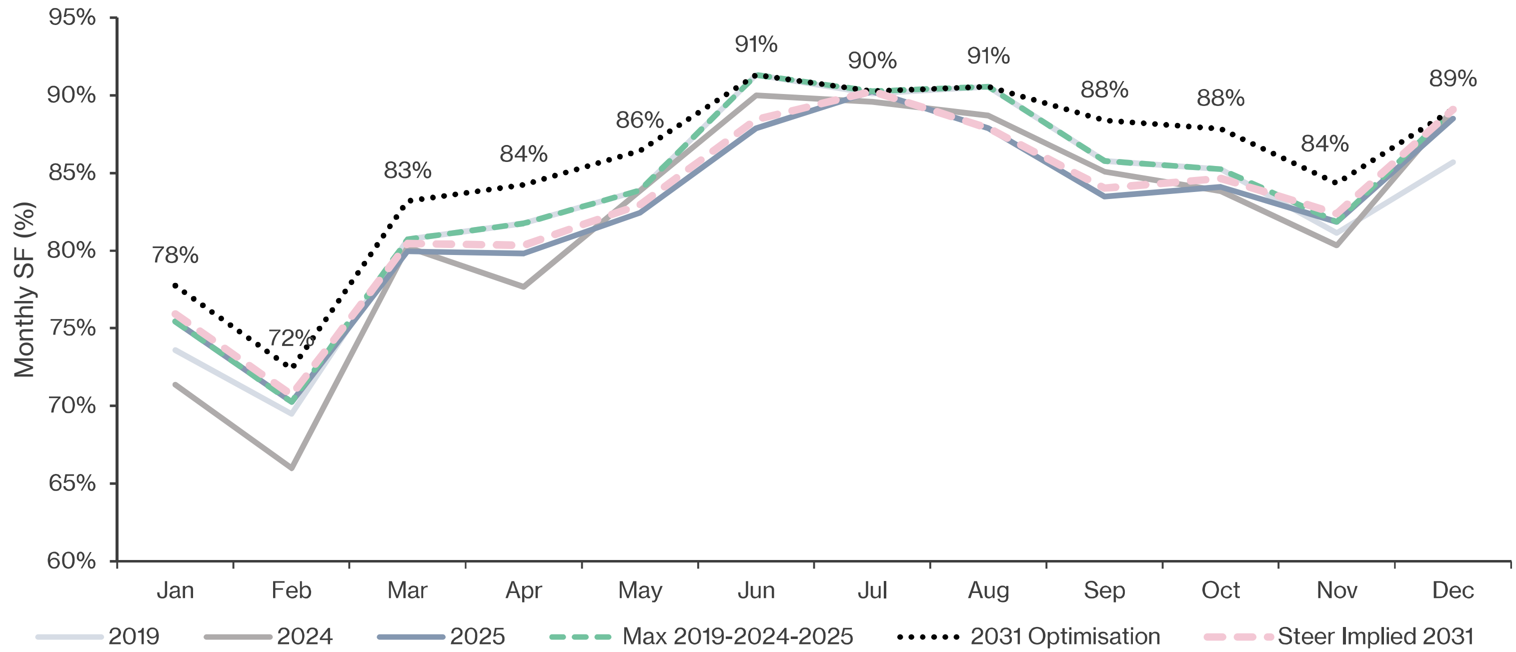
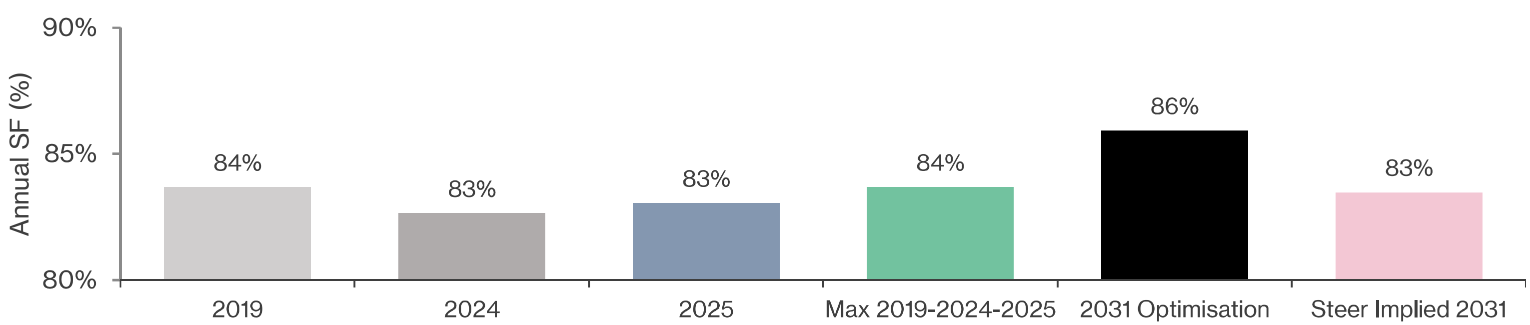
Conservative seat factor growth assumption by Steer for North America by 2031. Reasonable to assume further seasonal seat factor optimisation to c. 86% by 2031

North America Seat Factor Optimisation Potential

- North American flights already see relatively high seat factor in the summer period, historically reaching 90%
- It is reasonable to see continued improvements in the shoulder periods, continuing to the winter period within the next 7 years
- Steer's forecast of 83% is pessimistic, not reflecting any potential improvements in the medium term

North America Seat Factor Baseline vs Optimisation





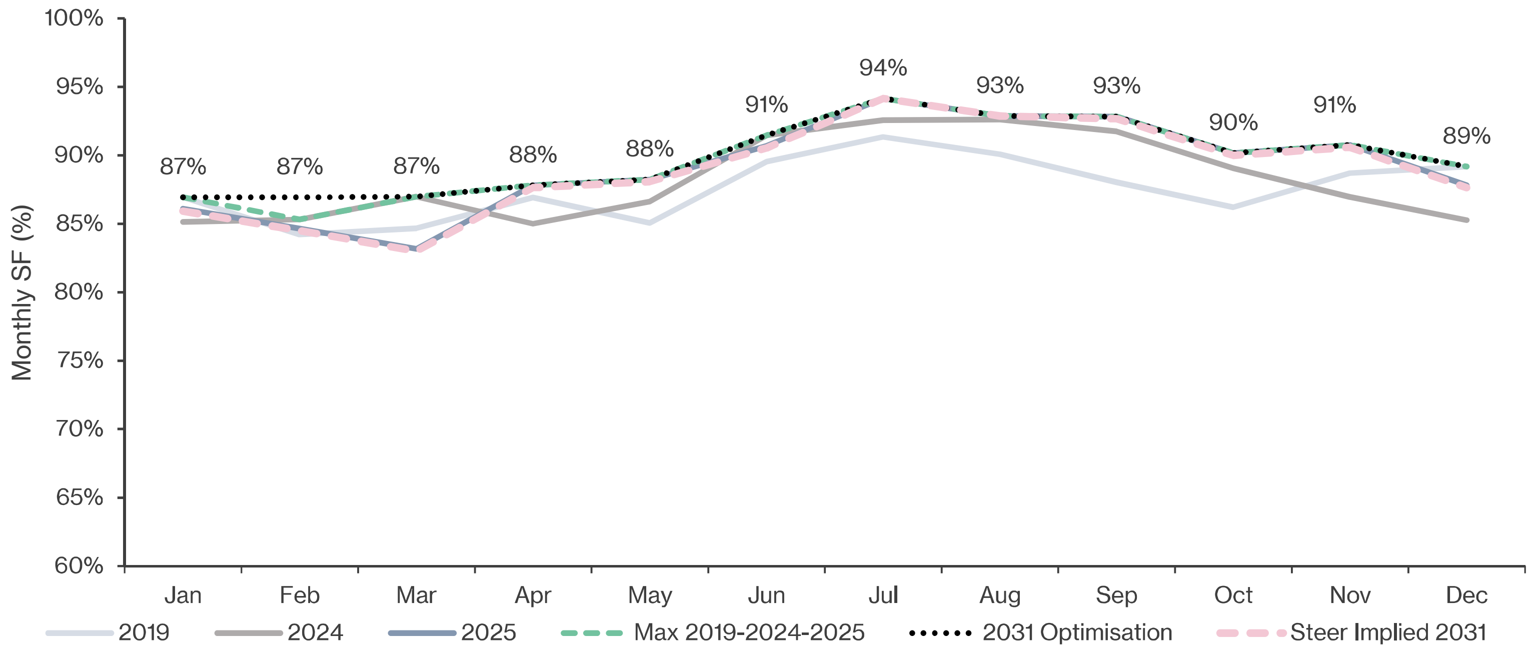
 Source: Steer, HAL, CAA

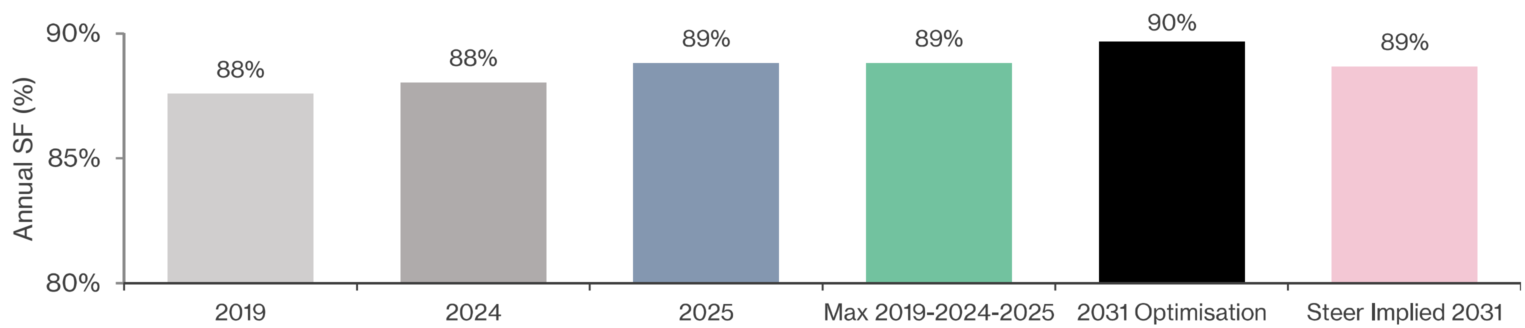
Reasonable to assume further seasonal seat factor optimisation to c. 90% by 2031, higher than Steer's assumption of 89%

Latin America Seat Factor Optimisation Potential

- Latin American flights already see relatively high seat factor throughout the year, with peaks already experiencing seat factor of more than 90%, reflective of the higher demand compared to the limited capacity
- It is reasonable to see the seat factor continue to be optimised to an average of 90% by 2031

Latin America Seat Factor Baseline vs Optimisation



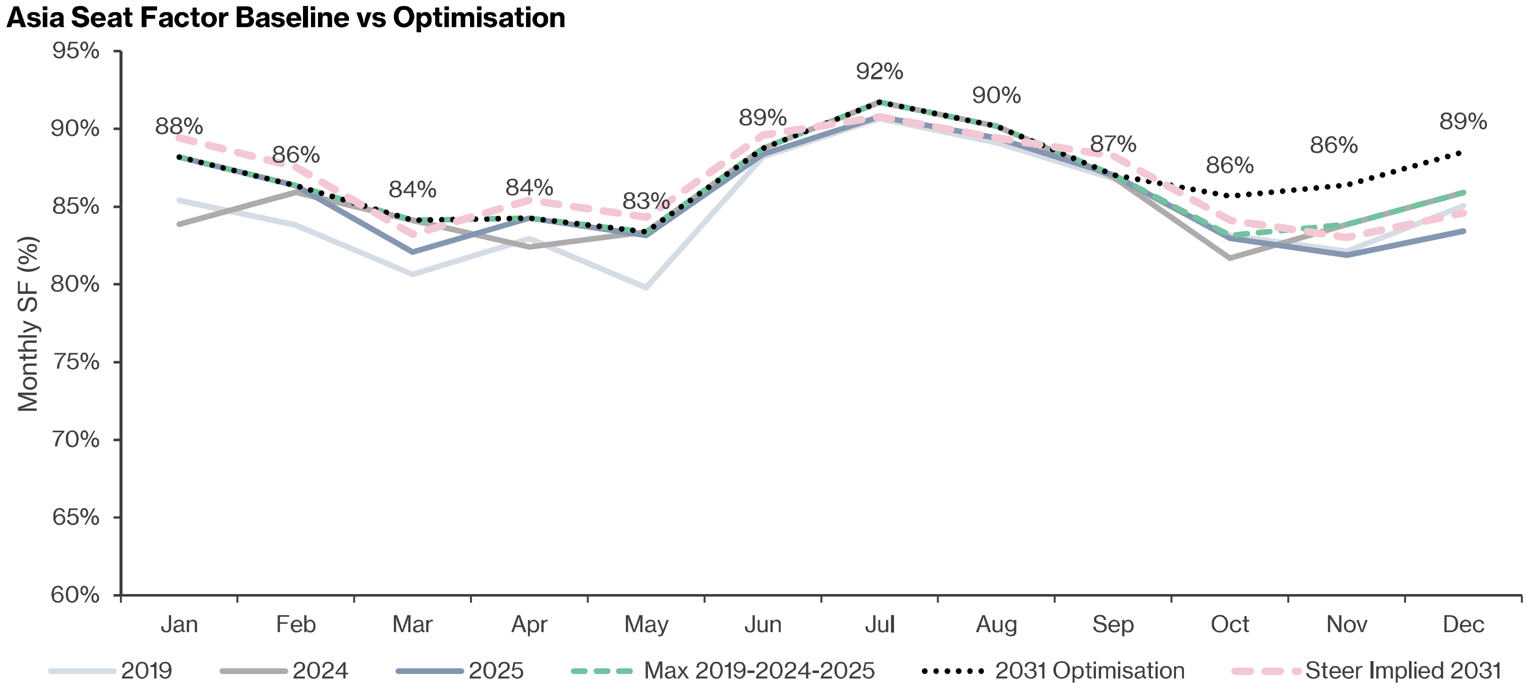


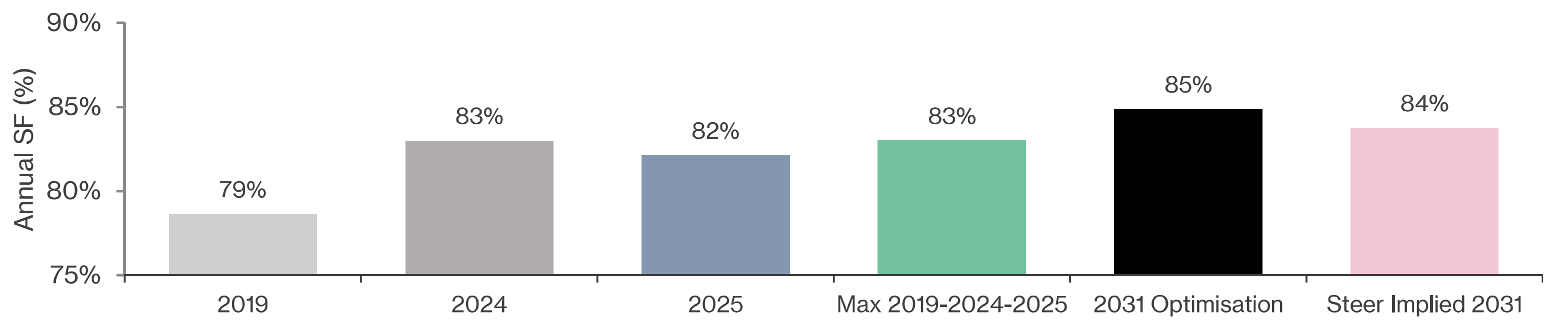
Source: Steer, HAL, CAA

Reasonable to assume further seasonal seat factor optimisation to c. 85% by 2031, higher than Steer's assumption of 84%

Asia Seat Factor Optimisation Potential

- Asian flights already see relatively high seat factor throughout the year, with peaks already experiencing seat factor of more than 89%, reflective of the higher demand compared to the limited capacity
- It is reasonable to see the seat factor continue to grow to an average of 85% by 2031, with improvements extending through the shoulder and winter period
- Steer's forecast of 84% is pessimistic, not reflecting any potential improvements in the medium term, especially within the relatively high-growing region





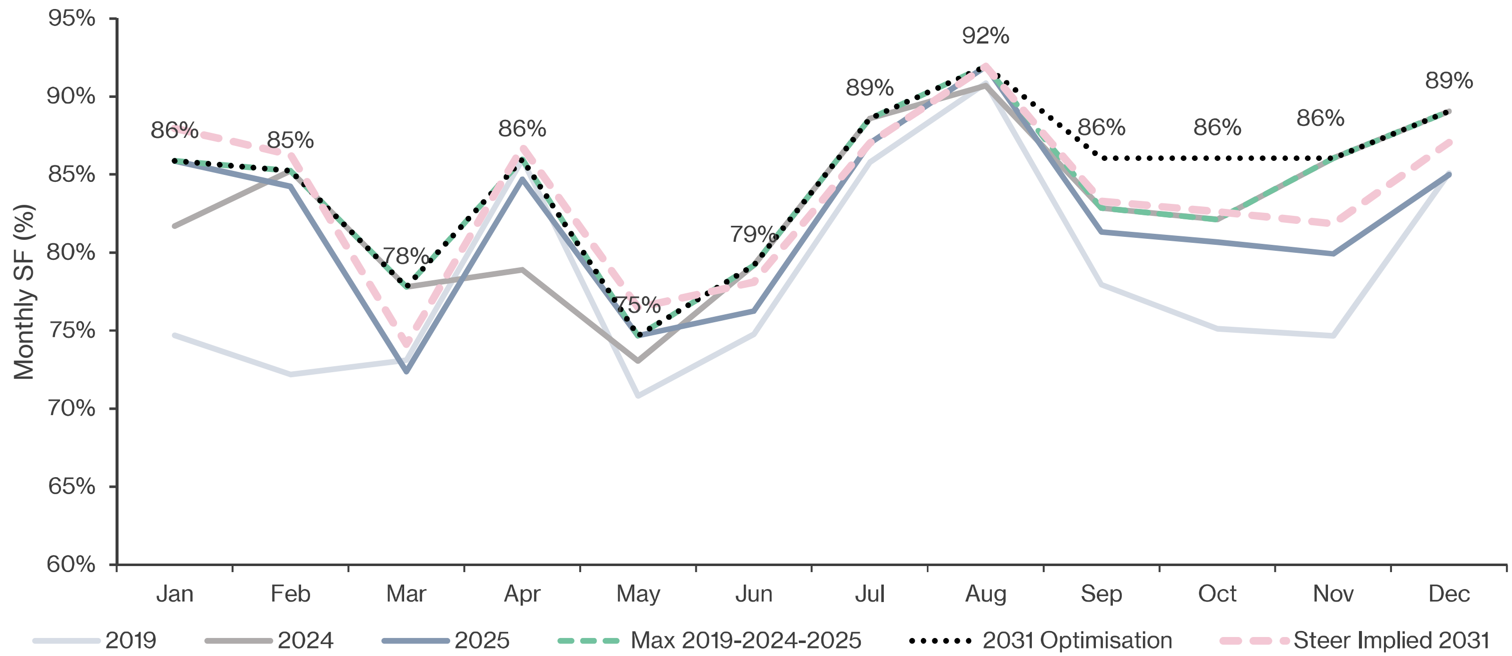
 Source: Steer, HAL, CAA

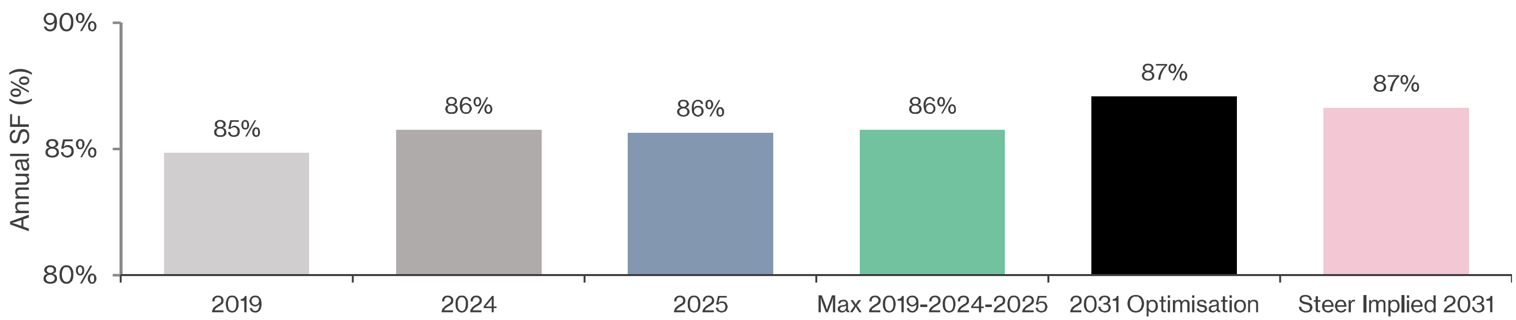
Reasonable to assume further seasonal seat factor optimisation to c. 87% by 2031, relatively similar to Steer's assumption

Middle East Seat Factor Optimisation Potential

- Middle East flights reflect mix of hub as well as O&D traffic, influenced by seasonal religious events
- The August peak seat factor already saw seat factor of 92%
- It is reasonable to expect further potential for seat factor improvements by 2031, to c. 87%

Middle East Seat Factor Baseline vs Optimisation





 Source: Steer, HAL, CAA

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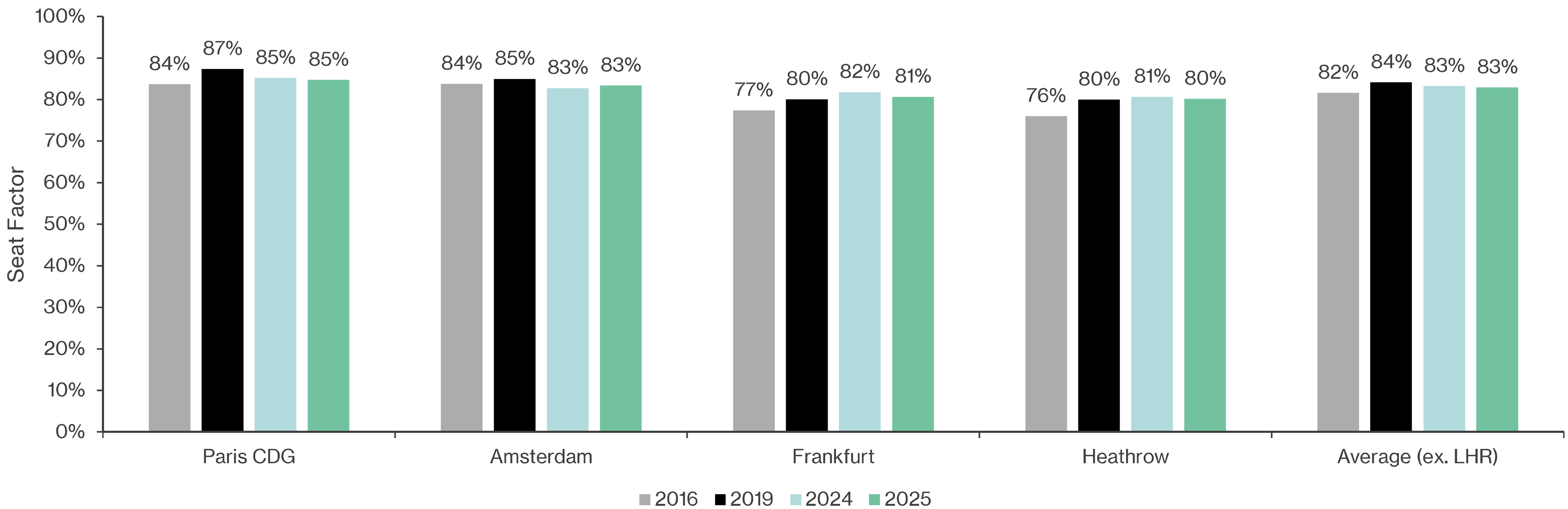
LHR's seat factor is lower compared to major European hub airports (82%-84%). LHR has further potential to improve its seat factor towards the benchmarked hubs' range

Benchmark Major European Hub Seat Factors

- Heathrow's average seat factors are typically lower than those for other European hubs, with one of the factors mentioned by HAL, of LHR having a more premium passenger mix at the airport
- However, the combination of off-peak improvements, optimisation of seat factor growth (especially for Europe, through a step-change in AI technology implementation) and the change in a higher long-haul mix should support higher seat factor growth, on the back of limited passenger ATM growth
- By 2031, a target of c. 83% seat factor is reasonable when compared to the current level achieved by the other benchmarked airports

Benchmark European Hubs Seat Factor Evolution



Estimated from Management's combined Paris Aéroport seat factor (CDG & ORY), using OAG capacity mix

As per Management's annual report

As per Management's annual report. For 2025, estimated based on OAG capacity

As per Management's annual report

 Source: HAL, Airport Websites, OAG

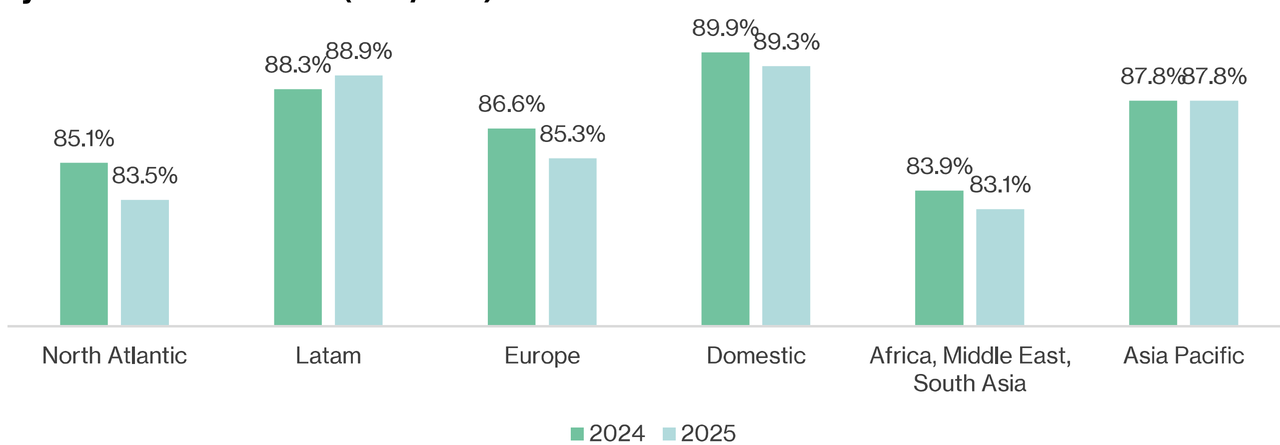
British Airways load factor is low compared to the AF-KLM group, with further potential to improve in the medium term

Load Factor of Main Hub Airlines

- In 2024, British Airways, the largest operator at LHR, had 85% load factor on its systemwide network (based on RPK/ASK metric)
- In 2025, the load factor declined to 84%
- British Airways load factor is lower than the AF-KLM group's load factor of 87%, but relatively similar to Lufthansa Airlines' load factor of 83%
- Comparing IAG's systemwide load factor by region shows further potential scope for IAG/British Airways to optimise load factor improvements within Europe, North Atlantic and Africa/Middle East/South Asia
- BA's recent investment in a new revenue management system/ AI technology should support the medium-term load factor improvements

Main Hub Airlines Systemwide Load Factor (RPK/ASK)

IAG Systemwide Load Factor (RPK/ASK)



 Source: Airline annual reports

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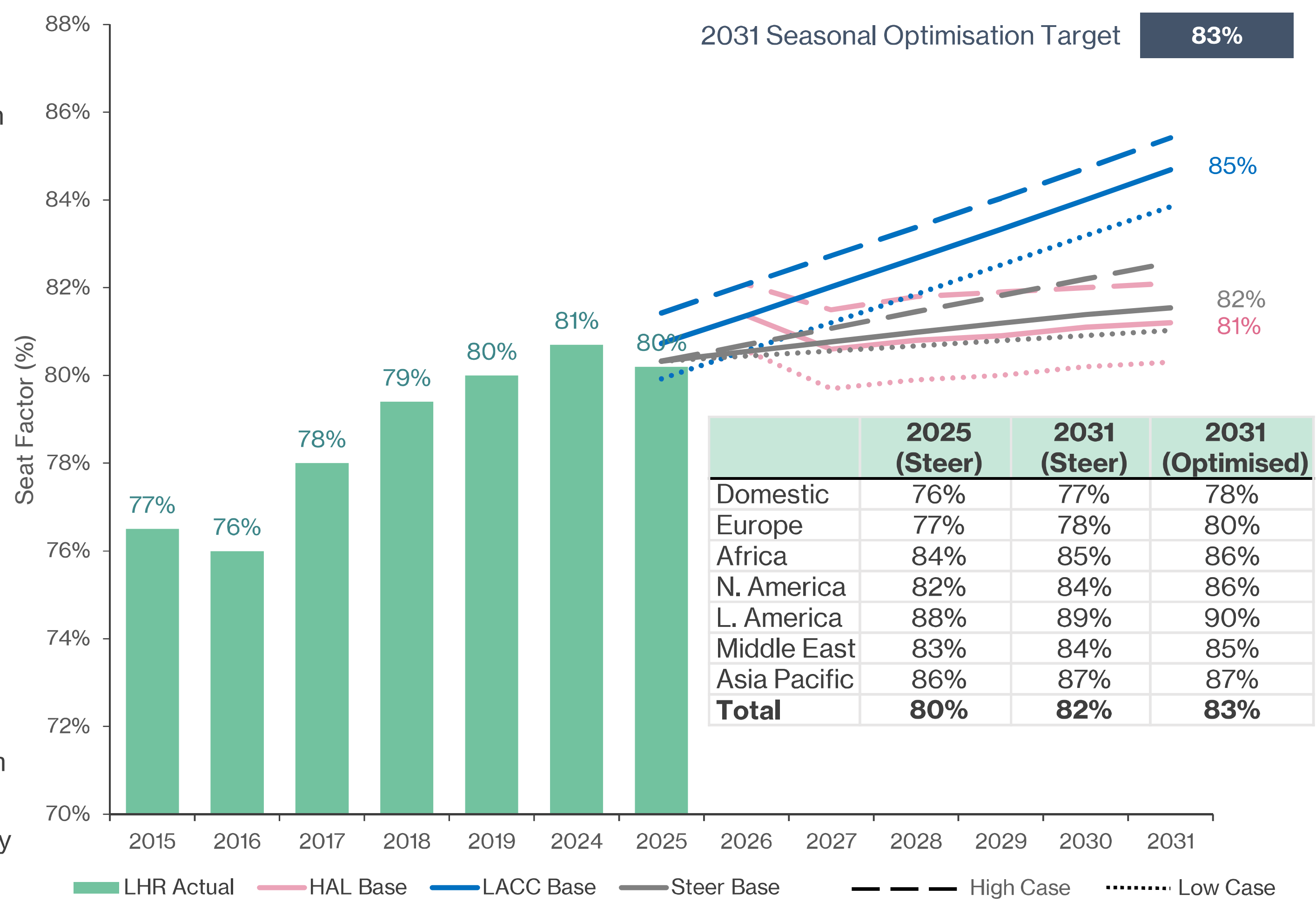
Steer's proposed seat factor growth is conservative compared to the medium-term potential in seat factor optimisation, within a slot-constrained airport

Seat Factor Forecast

- 2024 saw a peak seat factor of 80.7%. In the period when ATMs grew by 0.3% vs 2015, seat factor grew by 0.6%
- 2025 saw a slight reduction to 80.2%
- Steer's seat factor assumption of 80.7% in 2027, growing to 81.5% by 2031, is conservative (0.2% CAGR), resulting from only 0.1% growth in ATMs
- Steer assumes a minimal increase in long-haul vs European flights, with the share of European ATMs (which have lower seat factor), reducing from 52% in 2025 to 51% in 2031
- Continued seat factor growth could be reasonably expected through:
  - Improvements in off-peak and low season
  - Improvements at the regional level
  - Trends of AI optimisation and revenue management, focusing on maximising seat factor
- Skylark sees a reasonable assumption for the seat factor evolution in the medium term to grow to c. 83% in the medium term
- This is lower than LACC's base case assumptions, of 85% by 2031, but relatively similar to LACC's low case



	2025 (Steer)	2031 (Steer)	2031 (Optimised)
Domestic	76%	77%	78%
Europe	77%	78%	80%
Africa	84%	85%	86%
N. America	82%	84%	86%
L. America	88%	89%	90%
Middle East	83%	84%	85%
Asia Pacific	86%	87%	87%
Total	**80%**	**82%**	**83%**

Source: HAL, Steer, CAA, LACC

Even with the focus on premium passengers, airlines at LHR are expected to continue improving their ability to accommodate more passengers per movement within a slot-constrained airport

HAL's Argument for Limited Seat Factor Growth

Factors lowering seat factor according to HAL	Mitigation trend to support sustained seat factor growth
The focus at Heathrow on high-yielding premium passengers	Long-haul flights, which have relatively higher premium passengers already showing relatively high seat factor, driven by the pent-up demand to use LHR to access the London/UK market
Some short-haul carriers block seats for premium passengers	There will still be scope for improving seat factor for the economy seats. Additionally, it is likely with limited slot increase that the airlines will take opportunity to shift/trade some of the short-haul slots with long-haul flights
Slot constraints and a focus on frequency for business and connecting travel result in seat capacity being maintained throughout the year	Transfer share is already being assumed to reduce in the medium-term, with pent-up point-to-point demand expected to remain strong for LHR
Significant increases in seats and therefore seats per movement have historically impacted seat factors, particularly on long-haul.	At a passenger per ATM level, the combination of increase in aircraft seats and seat factor has continued to grow robustly at c. 11% (2015-2025), on the back of only 1.3% passenger ATM growth With flat passenger ATM growth assumed in the medium-term, it is reasonable to assume the passengers per ATM to grow at c. 9% between 2025-2031

Proposed Forecast Assumptions vs Historical Absolute Increase

Period	Seat Factor	Aircraft Size	Pax per ATM	Pax per ATM CAGR
2015-2024	4.2%pp	+12	+18	1.2%
2024-2031 (Proposed)	2.5%pp	+12	+16	1.2%
2024-2031 (Steer)	0.8%pp	+12	+12	0.9%

Traffic Forecast Building Block Passenger Summary

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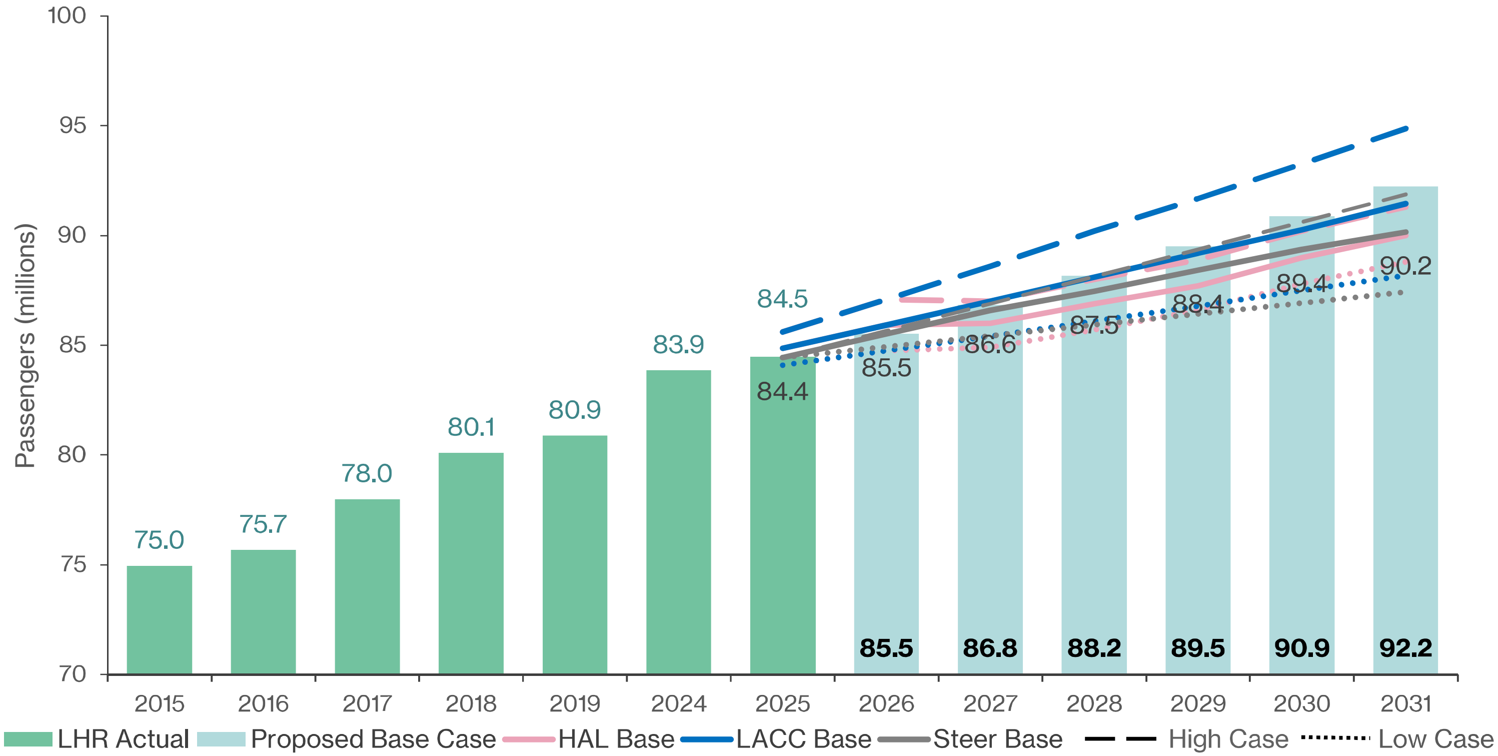
Based on the combined adjustments of the passenger ATMs, optimised seat factor, and increased aircraft size, 2031 passengers could reach 92.2m, 2% higher than Steer's forecast

Potential Base Case Passenger Forecast

- Potential 92.2m passengers by 2031
  - On the assumption of passenger ATM of 475,596 (similar to the 2025 level)
  - Optimised seasonal load factor within the medium term to a target of 83%
  - Aircraft size of 233 seats (relatively similar to Steer)
- Higher than Steer's base case of 90.2m (2% higher)
- Higher than LACC's base case of (91.5m)

Passenger Forecast Comparison, Steer vs Skylark's Combined Adjustments



	H8 Passengers	Variance	2027	2028	2029	2030	2031
Combined Adjustment	447.6m		86.8m	88.2m	89.5m	90.9m	92.2m
Steer	442.0m	-1.3%	86.6m	87.5m	88.4m	89.4m	90.2m
HAL	439.6m	-1.8%	86.0m	86.9m	87.7m	89.0m	90.0m
LACC	446.0m	-0.4%	87.0m	88.1m	89.2m	90.3m	91.4m

 Source: HAL, Steer, CAA, LACC

Steer's unconstrained forecast shows continued high growth of demand for LHR, with 99.1m passengers by 2031, compared to a constrained forecast of 90.2m (vs 92.2m proposed adjustments)

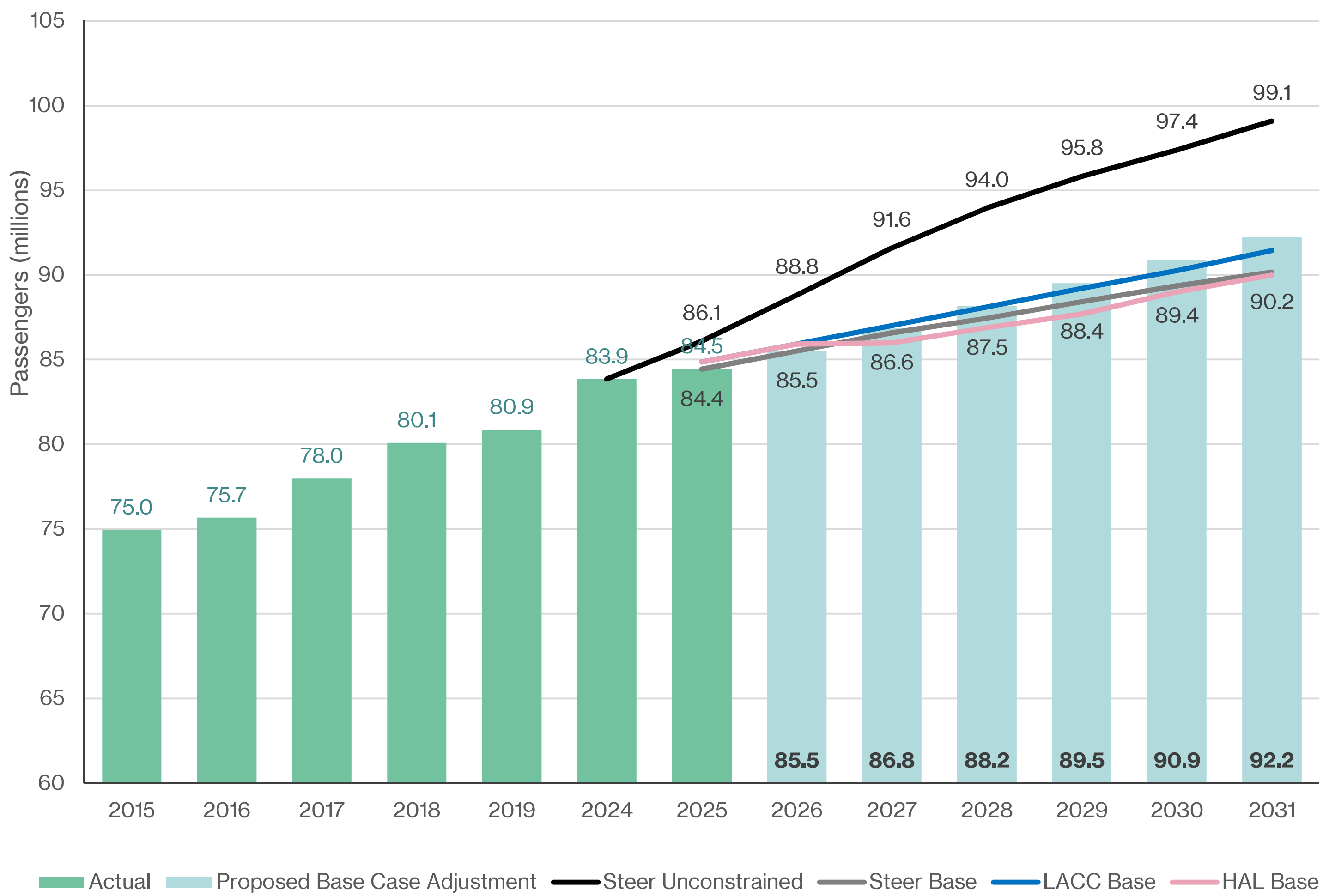
LHR Unconstrained Forecast

- Steer projects continued demand potential for LHR in an unconstrained environment (2.4% CAGR 2025-2031)
- As a comparison, Steer projects the movements cap result in LHR to only grow to 90m passengers by 2031 (1.1% CAGR)
- It is reasonable to assume that the higher unconstrained demand will continue to support the increase in both average aircraft size and seat factor

Steer LHR's Constrained Passenger Growth, 2025-2031

Region	CAGR
Domestic	0.5%
Europe	1.0%
Africa	1.8%
North America	0.1%
Latin America	0.8%
Middle East	1.4%
Asia Pacific	3.1%

Steer LHR's unconstrained forecast vs capped ATM forecast



 Source: HAL, Steer, CAA, LACC

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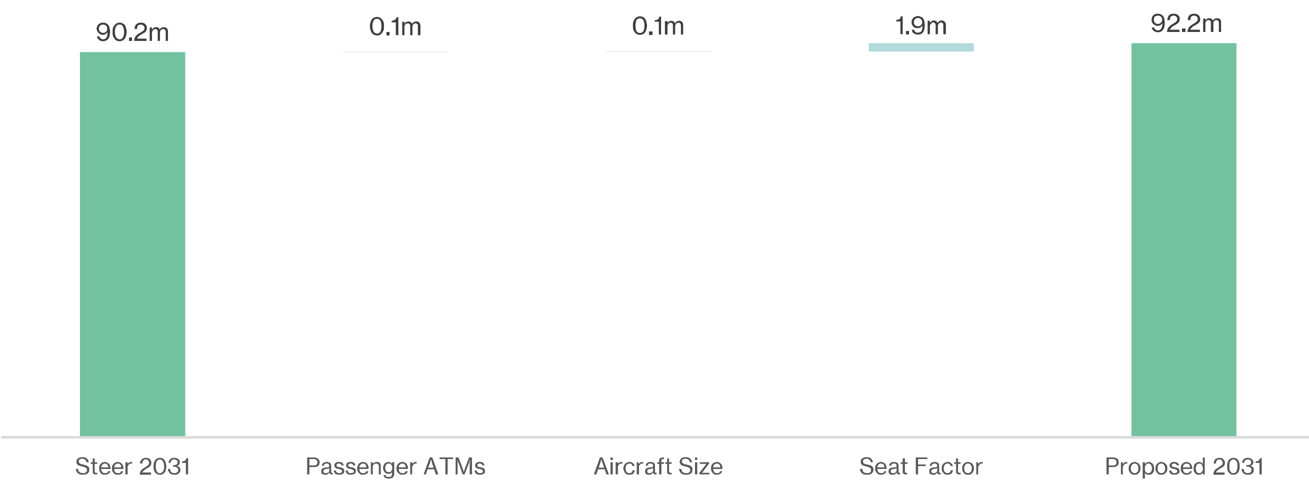
Main proposed adjustments relate to seat factor optimisation, driven by AI advancement in revenue management and continued demand for LHR, within a constrained H8 operating environment

Comparison of Traffic Assumptions

Region	Passenger ATMs			Aircraft Size			Seats (m)			Load Factor			Passengers (m)		
	Steer	Proposed	*Diff %*	Steer	Proposed	*Diff %*	Steer	Proposed	*Diff %*	Steer	Proposed	*Diff %*	Steer	Proposed	*Diff %*
Domestic	34.5	34.5	*0.0%*	177.2	177.2	*0.0%*	6.1	6.1	*0.0%*	77.4%	77.6%	*0.3%*	4.7	4.7	0.3%
Europe	242.7	242.7	*0.0%*	189.7	189.7	*0.0%*	46.1	46.0	*0.0%*	78.1%	80.2%	*2.7%*	36.0	36.9	2.7%
Africa	16.5	16.5	*0.0%*	271.3	271.3	*0.0%*	4.5	4.5	*0.0%*	84.6%	86.2%	*1.9%*	3.8	3.9	1.9%
North America	88.5	88.5	*0.0%*	279.7	279.7	*0.0%*	24.8	24.8	*0.0%*	83.5%	85.9%	*2.9%*	20.7	21.3	2.9%
Latin America	9.0	9.0	*0.0%*	285.2	285.2	*0.0%*	2.6	2.6	*0.0%*	88.7%	89.7%	*1.1%*	2.3	2.3	1.1%
Middle East	33.3	33.3	*0.0%*	341.4	342.0	*0.2%*	11.4	11.4	*0.2%*	83.7%	84.9%	*1.3%*	9.5	9.7	1.5%
Asia Pacific	50.4	51.1	*1.4%*	302.5	302.5	*0.0%*	15.3	15.5	*1.4%*	86.6%	87.1%	*0.5%*	13.2	13.5	2.0%
Total	**475.0**	**475.6**	***0.1%***	**232.8**	**233.0**	***0.1%***	**110.6**	**110.8**	***0.2%***	**81.5%**	**83.2%**	***2.1%***	**90.2**	**92.2**	**2.3%**

Proposed 2031 Forecast Difference



Passenger Growth CAGR (2025-2031)		
Region	Steer	Proposed
Domestic	0.5%	0.6%
Europe	1.0%	1.4%
Africa	1.8%	2.2%
North America	0.1%	0.6%
Latin America	0.8%	1.0%
Middle East	1.4%	1.6%
Asia Pacific	3.1%	3.4%
Total	**1.1%**	**1.5%**

Skylark sees the combined adjustments could result in the potential for LHR's H8 2031 traffic to **be 2%** higher than Steer's forecast

Forecast Summary (Unshocked)

Higher
Lower

	Steer Base 2031	HAL Base 2031	LACC Base 2031	Skylark Combined Adjustments 2031
ATMs (#)	475.0	473.9	474.0	**475.6**
Aircraft Size (seats)	232.8	234.1	227.8	**233.0**
Seat Factor (%)	81.5%	81.2%	84.7%	**83.2%**
2031 Passengers	90.2m	90.0m	91.4m	**92.2m**
Cumulative H8 Pax	442.0m	439.6m	446.0m	**447.6m**

Shock Factor Assumptions

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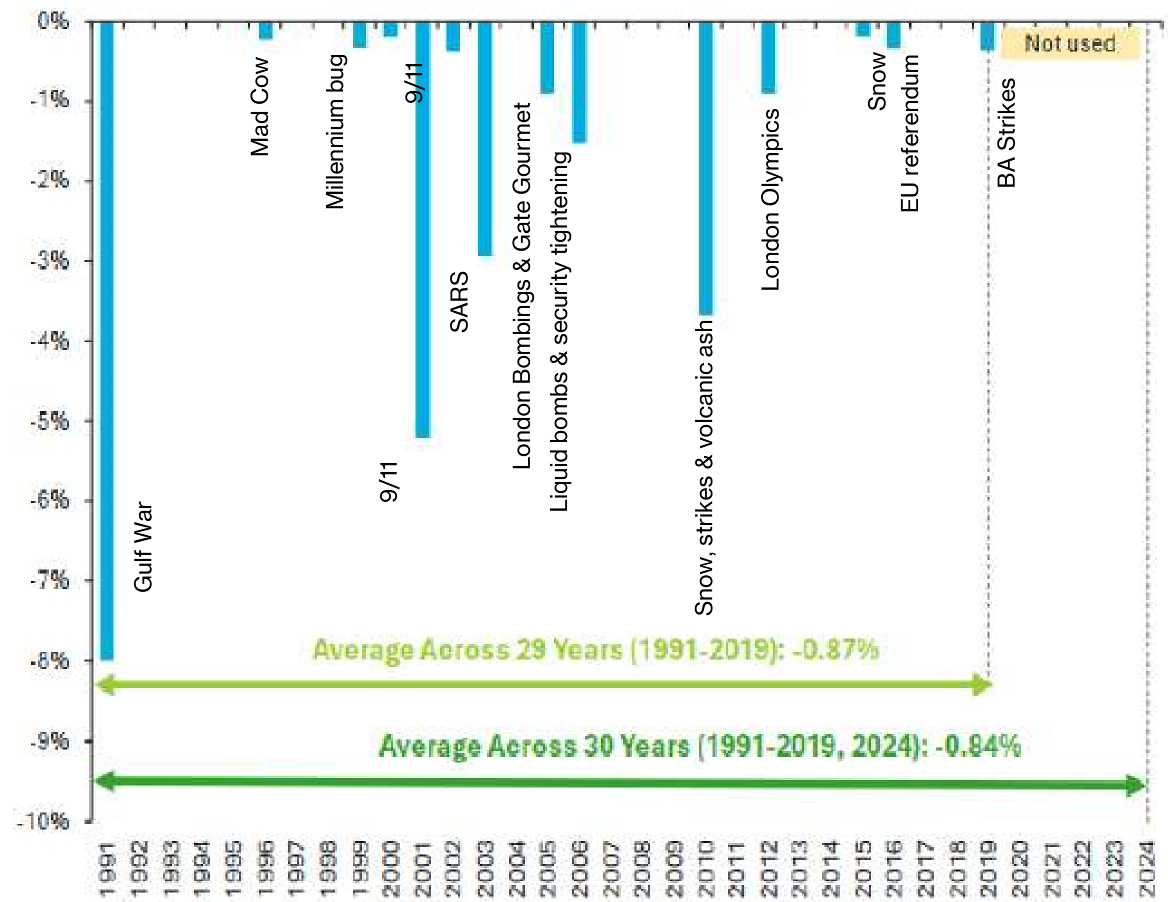
In its current form, the shock factor approach is flawed and is deemed to overlap with the TRS mechanism of comparing actual vs forecast passengers

Shock Factor Methodology

- The shock factor is a small downward adjustment applied to passenger forecasts, reflecting the fact that there will be non-economic shock events that are unpredictable and will cause a non-recoverable reduction in passenger volume
- A shock factor of -0.84% is applied in the BP for H8 traffic (excluding the COVID years)
- There is overlap with the traffic risk sharing (TRS) mechanism, which is already designed to protect the airport from similar unpredictable shocks/volatility - by using the shocked forecast as the baseline for the TRS, rather than the P50/unshocked forecast
- Additionally, the shock factor impact is calculated based on estimating the deviation of the actual "shocked" months with similar months in previous and the following year against the actual annual traffic and not the original forecasted traffic as part of the price determination
- As an example, HAL identified a "shock event" of the EU referendum that was assumed to have occurred between August 2016 and October 2016, with the impact of c. -0.3m passengers
  - It is not clear on the rationale of the "shock event" to be associated with the EU referendum vote, which occurred in June 2016
  - The year's outturn traffic of 75.7m passengers was actually +2m higher than the Q6 forecast of 72.7m passengers (shocked), and c.+3m (unshocked forecast)

LHR Shock Events and Assumed Historical Impact



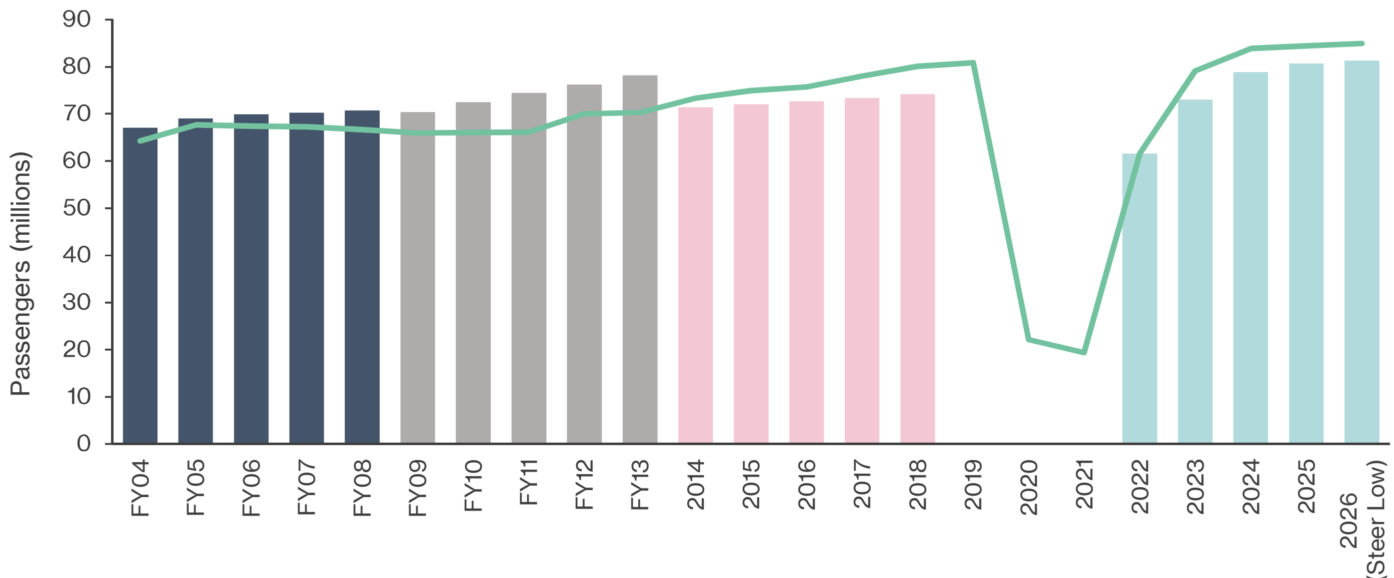
 Source: HAL, CAA

Application of shock factor in the last 2 regulatory periods has widened the under forecasting of traffic, defeating CAA's purpose "to improve the accuracy of the forecast for the period"

Historical Traffic Outperformance vs Regulatory Decision

- The "shock factor" is an adjustment introduced by the CAA in Q6 to reflect "asymmetrical non-economic downside risks" which are difficult to predict, of which the inclusion of the factor is "to improve the accuracy of the forecast for that period"
- However, in both Q6 and H7 (excluding the COVID period), the traffic has outperformed the regulatory forecast
- In the case of H7, the variance of the cumulative passengers within the period (assuming 2026 traffic to be similar to Steer's low scenario) is estimated to be -5% under forecasted (- 19m passengers)

LHR Actual Passengers vs Regulatory Forecast



- Under the proposed H8 approach, airlines have no incentives to aim for a high forecast level, as this would be recalibrated through the TRS, with a smaller margin on the upside
- On the other hand, the combination of lower forecast and higher shock factor application will see higher upfront airport charges/revenue for HAL
- As such, Skylark does not support including the shock factor in the unconstrained base case or P50 forecast - which, by its nature, on a cumulative basis, already represents a balanced medium-term view

	Q4 FY04-FY08	Q5 FY09-FY13	Q6 2014-2018	H7 2022-2026[1]
Cumulative Forecast Passengers	347.0m	371.8m	363.7m (Shocked) 368m (Unshocked est. at -1.2%)	375.5m (Shocked Final Det.) 378.2m (Unshocked)
Cumulative Actual Passengers	394.0m	338.5m	382.1m	394.0m
Variance	-3.9%	-9.0%	5.0%	4.9%

 Source: CAA, CC, HAL

Note: Note: 2026 estimate using Steer's low case of 84.9m (0.6% Y-Y vs Q1 actual of 3.7% y-y. Q8 FY2009 Jan-Mar actual + Q8 9 months forecast

Since its introduction, there is no evidence that the shock factor improves forecast accuracy, contrary to the rationale highlighted by the CAA

Duplicating Traffic Risk Sharing and Shock Factor

- In its H7 review of the proposed TRS mechanism for the CAA, Deloitte highlighted that as long as the *"shock factor is used to improve the accuracy of the forecasts, rather than provide compensation for risk, it would appear reasonable for the TRS mechanism's baseline to be based on the passenger forecasts after they have been adjusted by the shock factor"*
- However, since its introduction in Q6, the inclusion of the shock factor within the baseline forecast has further widened the underforecasting of actual outturn vs forecast, contrary to CAA's original aim that "it is intended to ensure that the forecast better reflects the expected value of traffic"
- Additionally, the CAA, in its Competition Commission appeals statement, has stated, "*The CAA has taken the TRS into account in the calibration of the shock factor"*
- However, based on the shock factor methodology presented, Skylark has not seen a direct interlink mechanism between the assumed shock factor (-0.84%) and the TRS mechanism, except for using the shocked passenger forecast as the baseline for the TRS

Excerpt of Deloitte's Review of the CAA's proposed traffic risk sharing (TRS) mechanism (23 June 2022)

Specific issues relating to the TRS mechanism (2/2)

Shock Factor

The CAA has asked Deloitte to consider the position of a few particular issues which have arisen from the stakeholder consultation and in particular comments from British Airways. The CAA has asked Deloitte to consider these and the appropriateness of the CAA's position. The specific adjustments, British Airway's comments, the CAA's response and Deloitte's comments are set out in these pages.

Adjustment	Shock Factor
Description	In calibrating its passenger forecasts, the CAA applies an annual "shock factor" of -1.07% in order to reflect the fact that historically there have been downward shocks such as the Gulf War, 9/11 terrorism attacks, SARS and volcanic ash. This adjustment is applied to provide a more accurate expected value of passenger volumes as the CAA's forecast model doesn't account for this type of shock.
BA's query[1]	"3.73. Including a shock factor artificially reduces the baseline passenger numbers, which transfer the risk of such shocks to consumers before risk sharing takes place; the application of risk sharing on top of this adjustment further transfer risk to consumers, and the CAA must remove this shock factor in order to accurately calibrate the TRS."
CAA's rationale	• The purpose of applying the shock factor to the passenger forecasts is so that the forecast more accurately reflects the expected number of passengers rather than a mechanism to compensate HAL for asymmetric risk i.e. it is intended to ensure that the forecasts better reflect the **expected value** of traffic. • The CAA has stressed that the purpose of this is not to compensate for and/or provide protection against traffic risk. • It is therefore appropriate to use the adjusted forecasts for estimating airport charges and also as the baseline for the TRS mechanism.
Deloitte comments	Provided that the explanations and rationale that the CAA has provided Deloitte (i.e. that the shock factor is used to improve the accuracy of the forecasts, rather than provide compensation for risk), it would appear reasonable for the TRS mechanism's baseline to be based on the passenger forecasts after they have been adjusted by the shock factor.

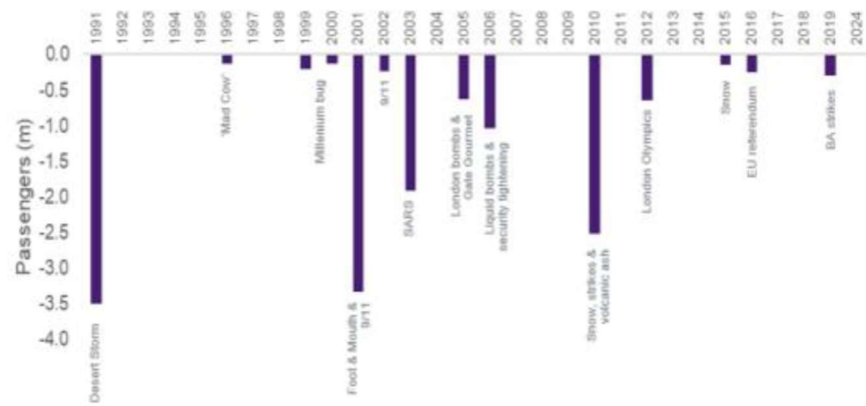
 Source: CAA, Deloitte

The shock factor estimates "15m lost passengers" over the past 30 years. To put this in context, this would be lower than the magnitude of H7 underforecasting in recent years (2023-2026[1])

Current Shock Impact Assumptions & Calculation

Events	Type	Start	End	Year	Impact on Year
Desert Storm	War	Jan-91	Dec-91 (exl. Sep-Oct)	1991	-8%
Mad Cow disease	Public Health	Mar-96	May-96	1996	<-0.2%
Millennium bug	IT	Dec-99	Jan-00	2000,2001	<-0.5%
Foot and Mouth	Public Health	Feb-01	May-01 & Aug-01	2001	-5%
9-11	Security	Sep-01	Jan-02	2001/ 2002	
SARS	Public Health	Mar-03	Sep-03	2003	-3%
London bombs & Gate Gourmet strikes	Security / Industrial	Jul-05	Oct-05	2005	-1%
Liquid bombs & security tightening	Security	Aug-06	Dec-06	2006	-2%
Volcanic Ash	Natural Disaster	Mar-10	Jun-10	2010	-4%
Snow	Weather	Dec-10	Dec-10		
London Olympics	Special Events	Jul-12	Aug-12	2012	-1%
Snow	Weather	Dec-15	Dec-15	2015	<-0.2%
EU referendum	Geopolitical	Aug-16	Oct-16	2016	<-0.4%
BA Strikes	Industrial	Sep-19	Sep-19	2019	<-0.4%
			Total		**-25.2%**
			Period of Years (1991-19,24)		**30**
			Average for Period		**-0.84%**

Shock Events and the Absolute Passenger Impact



Pax impact: 15m over 30 years

 Source: CAA CAP2980, HAL (impact based on graph estimate)

Note: 2026 estimate using Steer's low case of 84.9m (0.6% Y-Y vs Q1 actual of 3.7% y-y

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The CAA has concluded that Desert Storm in 1991 is not purely a "non-economic shock event". As such, Skylark proposes a review of the shock factor calculation, which included the 1991 event

Inclusion of the 1991 Desert Storm Impact

- In its July 2024 H7 Final Issues decision, the CAA made the following statement, in relation to a previous objection by Alixpartners (on behalf of the airlines) on the inclusion of the 1991 Desert Storm in the shock calculation:
  - *As for the calculation of the shock factor itself, while AlixPartners draw attention to **one "shock" (Desert Storm in 1991) that coincided with an overall downturn in UK GDP** and sought to argue that this meant that the calculation of the shock factor was "contaminated" by economic downturns, having reviewed UK GDP data for the whole of the period covered by the calculation, **we observe that this is the only year in which a "shock" coincided with a fall in UK GDP.***
  - *As a result, we can see no credible evidence of a systematic correlation between "shocked" years and years in which there was an economic downturn such that would cause us to question whether the calculation of the shock factor had indeed been "contaminated" by economic downturns. **Save for this one example, they all correlate with increasing GDP.***
  - *We also do not have any evidence that supports the suggestion that there are significant rebounds of demand (that is, over and above the restoration to normal levels of demand) following major demand shocks.*
  - *As a result, we are satisfied that the analysis we undertook for the March 2024 Consultation that verified HAL's calculations was robust and met the requirements set out by the CMA. We have, therefore, decided to retain a shock factor of 0.87% for the purposes of the passenger forecast for H7.*
- It is clear from the statement that CAA recognises that the 1991 Desert Storm event coincides with the UK GDP downturn, and therefore should not be considered as purely a non-economic shock event
- As was emphasised by Steer's overview of the shock factor –
  - *The CAA and CMA have accepted "using the shock factor allowed us to take account of asymmetric **non-economic downside risks** (due to events such as adverse weather, volcanic eruptions, terrorism or strike action)." (P31, Economic regulation of Heathrow airport: H7 final issues, March 2024)*
- Skylark acknowledges that Steer's remit is only to review the approach and calculations that lead to the -0.84% assumption, and not to review the rationale of the shock factor concept and the events being included
- However, given that the CAA has already established that the 1991 Desert Storm event coincides with the fall in UK GDP, using the CAA and CMA's definition, this event should not be included
- Excluding the 1991 Desert Storm impact would reduce the shock factor from -0.84% to -0.6%
- The CAA, in its Q6 decision to introduce the shock impact, opined on its starting point of 1991 as:
  - *the date at which the data series in the CAA's possession started, as the start date is neither any more, or any less, arbitrary than any other date;*
  - *that excluding Desert Storm from the analysis for no other reason than the magnitude of its effect would itself be arbitrary; and*
  - *that making judgements about the likelihood of overseas intervention in foreign conflicts during Q6 is beyond the expertise of an economic regulator.*

 Source: CAA, HAL, Skylark

If 1991 is still being included, the impact should at least be adjusted to reflect the overlap of the economic/non-economic shock event

Adjustment of the 1991 Economic Impact

- If the impact of the 1991 passenger decline is to being included as part of the shock factor calculation, the impact should at least be adjusted to reflect the overlap of the economic/non-economic shock event
- Skylark has illustrated a high-level estimate based on assumed counterfactual traffic growth driven by GDP elasticity (assumed at 1.5x) and the implied unshocked passengers that were being assumed by HAL (+3.5m passengers)
- The high-level analysis shows that the impact, excluding the overall economic GDP decline, is -3% vs -8% assumed within the shock calculation
- Using -3% for the 1991 shock factor impact would reduce the shock factor from -0.84% to -0.7%
- Alternative to the adjustment of the 1991 Desert Storm event, Skylark suggest a fixed 30-year period to be used (i.e., for the H8 period: 1992-2019, 2024-2025)
- Conceptually, if shock factor continues to be a feature of future regulatory determinants, the H9 period (from 2032) will see the 30-year period used to determine the shock factor shifting to begin from 2000 (excluding the COVID years)

High-level Estimation of 1991 Non-economic Impact

	Description	Reference	Measure	Y-Y Change
HAL	1990 Passengers	a	42.6m	
HAL	1991 Passengers	b	40.2m	-5.6%
HAL	Shock Assumed by HAL		-3.5m	
HAL	Implied 1991 Pax (Unshocked)	c	43.7m	2.6%
HAL	% Shock Assumed		**-8%**	
Skylark Adjustment	1991 GDP Decline	d	-1.4%	
Skylark Adjustment	Assumed Multiplier (implied last 10 years)	e	1.6	
Skylark Adjustment	Implied 1991 Pax Growth	f = d * e	-2.2%	
Skylark Adjustment	Implied GDP-led Traffic	g = a * (1+f)	41.7m	-2.2%
Skylark Adjustment	Actual 1991 Passengers	b	40.2m	-5.6%
Skylark Adjustment	Implied Non-Economic Shock	h = b-g	-1.5m	
Skylark Adjustment	Adjusted Shock Impact	i = h / c	**-3.3%**	

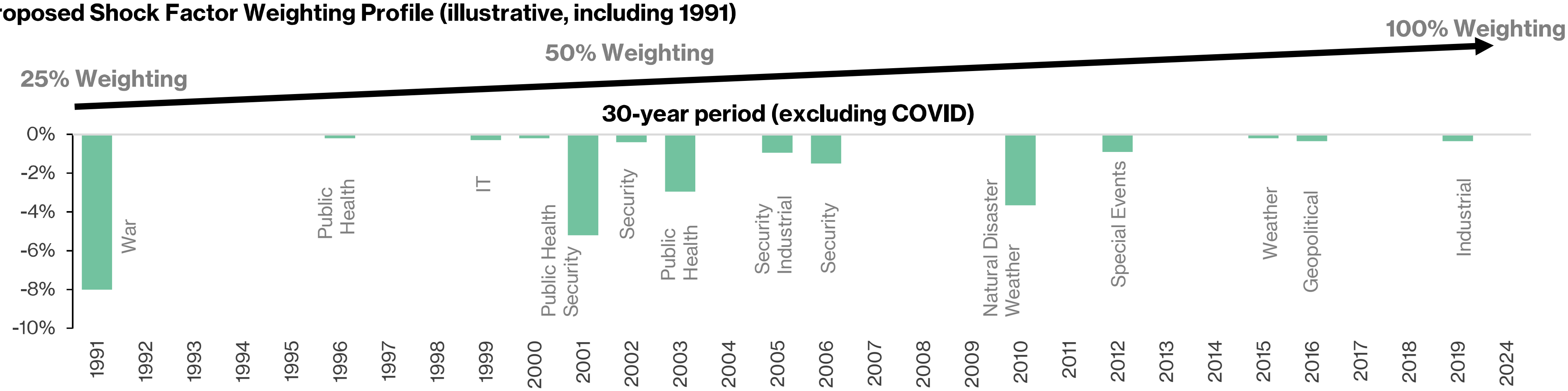
 Source: Skylark

Skylark proposes applying a weighting curve, recognising the increasing industry resilience, compared to decades ago when risk management, mitigation & efficiencies were less advanced

Illustrative Weighting of the Shock Impacts

- Additionally, Skylark proposes a straight-line weighting of the shock impact, from a notional 25% at the start of the 30-year period and 100% at the end of the shock period. Conceptually, this reflects that the mitigation and traffic resilience to shock events is c. 2x better than 20 years ago. Applying the proposed weighting to the original shock event profile could reduce the shock factor to c. -0.4%
- These adjustments give less weight to events that occurred 20 to 30 years ago, when the airport, airlines and the passengers were reactive, had less advanced mechanisms, and were inefficient in adapting/mitigating to shock events. In contrast, the current airport management, airlines and passengers are more resilient/proactive/invested in overcoming shocks, through real-time operational data, predictive analytics, technological and security advancements and wider geographical route mix. This is evidenced by the limited impact of non-economic shocks on passenger figures in the past decade (outside the COVID pandemic, which has been excluded in the shock calculations). Recent advancements in AI and predictive analytics will further support the industry's resilience
- The CAA has alluded to the resilience of LHR's traffic to shock events previously: "*We established that the reduction in the shock factor since Q6 was due to a lower prevalence of downside shocks since 2014*" (CAP3001)
- Each of the previous shocks will have enhanced LHR's resiliency. As an example, following the snow shock event in 2010, HAL had developed the Airport Operational Resilience Plan, part of which was investing in snow equipment and operational processes to improve the handling of such events
- For context, as part of the business plan guidance, the CAA has emphasised that resilience would be an important priority in the H8 period

Proposed Shock Factor Weighting Profile (illustrative, including 1991)



 Source: HAL, CAA

Including the shock factor in the forecast means passengers "pre-fund" the cost of "un-forecasted events" that may not materialise. If they occur, they should be managed through TRS

Illustrative Charges using Shocked vs Unshocked Passenger Baseline

- Steer's baseline passengers used within the building blocks, and the TRS mechanism, uses the shocked forecast of 438m, which is -0.8% lower than the unshocked forecast (and lower than Skylark's proposed forecast adjustments)
- The CAA's Initial Proposal summary of the passenger yield shows a base case of £28.77 passenger yield based on 438m passengers
- In contrast, the low case, which has 443m passengers projected (slightly higher than Steer's unshocked forecast of 442m), shows lower passenger yield of £27.20, a delta of -5.5%
- While there are additional differences within the Business Plan assumptions between the low and base scenarios, as well as the various traffic elasticity to the overall building blocks, the difference in the potential airport charges to passengers (c. -5%) emphasises the level of "pre-funding" that may be imposed from the start of the H8 period for "un-forecasted events" that may not materialise
- The cost of the "un-forecasted events", as defined within the shock factor definition, which would create divergence between the unshocked forecast passengers vs lower actual outturn, should be managed within the proposed TRS mechanism
- CAA's rationale for adding the shock factor is to improve the accuracy of the forecast. However, since its introduction, there is no evidence that this objective has been met
- As such, Skylark does not support adding the shock factor in the unconstrained base case P50 forecast - which, by its nature, already represents a balanced medium-term view
- Additionally, Skylark's proposed H8 forecast adjustment of 448m passengers is 2.3% higher than Steer's proposed shocked forecast, which would further reduce the yield per passenger

Steer Passenger Forecast, Shocked vs Unshocked

Forecast	2027	2028	2029	2030	2031	Total H8
Shocked	85.9m	86.7m	87.7m	88.6m	89.4m	**438m**
Unshocked	86.6m	87.5m	88.4m	89.4m	90.2m	**442m**

CAA Building Block Per Passenger Yield Assumptions by Scenario (£2024)

Scenario	H8 Passengers	Unprofiled yield per pax	vs Base
Base	**438m**	**£28.77**	
Low	**443m**	**£27.20**	**-5.5%**

 Source: CAA, HAL, Steer, Skylark

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